

**Indonesia's Textile and Apparel Industry:
Meeting the Challenges of the
Changing International Trade Environment**

WILLIAM E. JAMES, DAVID J. RAY, PETER J. MINOR

Economic Consultants, Nathan's Associates, Inc.

Working Paper Series Vol. 2002-20
August 2002

The views expressed in this publication are those of the author(s) and do not necessarily reflect those of the Institute.

No part of this book may be used reproduced in any manner whatsoever without written permission except in the case of brief quotations embodied in articles and reviews. For information, please write to the Centre.

***The International Centre for the Study of East Asian
Development, Kitakyushu***

Indonesia's Textile and Apparel Industry: Meeting the Challenges of the Changing International Trade Environment

**William E. James, David J. Ray, Peter J. Minor
Economic Consultants, Nathan's Associates**

Abstract

The international trade rules governing trade in textiles and textile products (TTP) are undergoing a dramatic transformation. The Multi-Fiber Arrangement (MFA) is being phased out and TTP trade will be conducted under the rules of the World Trade Organization (WTO) as of January 1, 2005. For Indonesia, this presents challenges and opportunities. In addition to the phasing out of the MFA, the global trading system is increasingly seeing the introduction of preferential trade agreements that liberalize trade amongst members, but that discriminate against non-members. The three major centers of world trade, North America, Europe, and East Asia are busy negotiating new PTAs that will divert trade in textiles from low-cost non-member producers such as Indonesia. Finally, China's entry into the WTO allows TTP producers there to avail of liberalized quotas and integration of TTP products into the tariff-based trade system as of 2002. With rising domestic production costs associated with restive labor markets and increased government interventions with decentralization, Indonesian TTP producers face a "double-squeeze". This paper provides some policy suggestions for how Indonesia might respond to the changes in the external and internal markets with a view to sustaining exports of TTP in the coming years.

Index

INTRODUCTION: INTERNAL AND EXTERNAL CHALLENGES TO THE INDUSTRY	2
CHARACTERISTICS AND IMPORTANCE OF TEXTILE AND APPAREL SECTORS	3
<i>Employment, Number of Establishments and Capital Stock in TTP</i>	3
<i>Export Orientation and Export Performance of TTP</i>	5
<i>Production Volume and Role of Foreign Investment in TTP</i>	9
SUPPLY SIDE PROBLEMS AND CHALLENGES	12
<i>Decentralization: The Increasing burden of local levies and taxes.</i>	13
<i>VAT on Cotton Imports</i>	15
<i>Labor Problems</i>	16
<i>Quality Issues</i>	22
INTERNATIONAL CHALLENGES: COMPETITION, THE GLOBAL SLOWDOWN AND PREFERENTIAL TRADE FOR	
COMPETITORS IN MAJOR MARKETS	26
<i>Market Share of Indonesian TTP in Major Foreign Markets</i>	26
<i>China in the WTO: Increased Competition</i>	33
<i>China Safeguards</i>	35
<i>Preferential Trade Agreements</i>	36
INTERNATIONAL MARKET ACCESS WITH END OF MFA AT END OF 2004: IS THE INDUSTRY PREPARING ADEQUATELY	
FOR OPEN COMPETITION?	39
<i>Quota-Fill Rates</i>	42
<i>Imports of TTP-Related Inputs in Production</i>	43
<i>China's Competitive Edge</i>	44
<i>Trade Remedies and the Rise of Antidumping</i>	45
CONCLUSIONS	46
RECOMMENDATIONS FOR INDONESIA	48
<i>External Challenges</i>	48
<i>Internal Challenges</i>	49
REFERENCES	51

Introduction: Internal and External Challenges to the Industry

The textile and apparel sector is of critical importance for the Indonesian economy. Prior to the onset of the economic crisis in late 1997, the textile and apparel sector had been a leading source of growth in manufacturing output, exports and employment. And, even today, it would be a serious mistake to regard textiles and apparel as a 'sunset industry.'

There remain good opportunities for the sector's development, particularly with the demise of the MFA and its replacement by a more open tariff-based trading regime under the WTO. However, there are considerable challenges, internal and external, to be overcome. Rising domestic costs of doing business have been a by-product of decentralization with local governments, in addition to the taxes paid to the central government, adding numerous levies and charges both legal and illegal. In addition, new freedoms to organize and engage in collective bargaining, have been seized upon by labor unions and have resulted in numerous industrial disputes and lost man-days. Higher labor costs in post-crisis Indonesia arise from sharp increases in minimum wages and laws entitling workers to generous severance pay. On the external front, there are also challenges emerging in the form of increasing competition, particularly from China and India but also from new players such as Vietnam and Cambodia as well as from labor-abundant economies like Pakistan and Bangladesh. Indonesia will face new market access problems as the result of the proliferation of preferential trade agreements particularly those involving partnerships between the EU, USA and Japan and developing or newly industrialized economies. For example, Pakistan has negotiated improved market access with both the EU and the USA. The EU is also engaged in negotiations for free trade agreements with Egypt and has already entered into such an agreement with Mexico. Japan and Singapore have concluded a free-trade agreement and numerous other agreements (over 20) involving East Asian countries and partners in the Pacific Rim or Europe are in process. The United States has launched preferential arrangements for textile and apparel imports with numerous developing countries under the Caribbean Basin Initiative (CBI), the African Growth and Opportunity Act (AGOA), the Andean

Pact, and NAFTA. Further US free trade agreements with Chile, Singapore and Jordan are under negotiation (the FTA with Jordan has already been passed into law). The entry into preferential regional and cross-regional trade agreements of each of three major hubs in world trade and Indonesia's exclusion from these agreements could spell disaster for market share in the coming years.

The study takes up these internal and external challenges in the following sections. Section II covers the main characteristics of the industry in Indonesia in terms of production, employment, trade, size of firms and capital stock. Section III examines the domestic environment under decentralization with a focus on Rising costs. Section IV takes up the external challenges in the international marketplace. Section V examines the industry's response to the changing international trade regime in textiles and textile products. Section VI concludes with policy implications and policy recommendations for Indonesia.

Characteristics and Importance of Textile and Apparel Sectors

Indonesia has one of the most comprehensive data sets on manufacturing of any developing country. The census of large and medium sized manufacturing establishments provides a wealth of data for manufacturing establishments with twenty or more employees between the years 1974 and 1998. We make use of this database, augmented by more recent international trade data, in order to provide information on the basic economic characteristics of the textile and textile products (TTP) sectors.

Employment, Number of Establishments and Capital Stock in TTP

Employment in textiles and apparel manufacturing establishments (all large and medium scale establishments with twenty or more employees) rose from 401,000 in 1986 to 1,032,000 in 1996 or from 23.7 percent of all manufacturing to 24.4 per cent (adding up the data presented in **table 1**).

**Table 1. Textile and Apparel Establishments, Employment and Value Added in Selected Years
(Number of Establishments and Employees; Value Added)**

Sector	Number of Establishments			Number of Employees (000)			Value Added (billion Rp.)		
	1986	1996	1998	1986	1996	1998	1986	1996	1998
ISIC 321 Textiles	2,968.0	2,284.0	2,100.0	369.0	636.0	600.0	1,200.0	7,536.0	18,607.0
% Foreign Establishments	2.2	5.0	5.3	12.5	13.8	13.0	27.6	22.3	30.1
% of all Manufacturing	15.0	9.7	9.8	18.6	15.0	14.6	11.5	9.0	12.0
ISIC 321 Apparel	938.0	2,386.0	1,950.0	101.0	396.0	401.0	339.0	3,229.0	6,259.0
% of Foreign Establishments	--	4.9	5.8	--	23.0	22.4	--	33.9	29.5
% of all Manufacturing	5.5	10.2	9.1	5.1	9.4	9.7	3.2	3.8	4.1

Source: Central Statistical Agency; Industrial Statistics, various issues. Also see Ramstetter and Takii (2000).

Employment fell slightly between 1996 and 1998, but the share of total manufacturing employment was virtually unchanged at 24.3 per cent. Moreover, output in the textiles and apparel sectors is not declining as a share of manufacturing output. Between 1986 and 1996 the share fell from 14.6 per cent to 12.8 per cent, but rebounded to over 16 per cent in 1998 (table 1).¹ The role of foreign-owned establishments in these sectors employment and value added is significant, accounting for between 12-14 per cent of textiles employment and 22-23 per cent of apparel employment and roughly 30 per cent of value added in recent years.

Of the total capital stock in manufacturing (excluding oil and gas), textiles, apparel & leather are estimated to have grown from 10.6 per cent in 1974 to 23.4 per cent in 1995, easily the largest sector in the non-oil manufacturing in the latter year.²

The Central Statistical Agency provides some additional data on number of establishments and ownership in addition to the data on employment and value added in the industry. The most recent data are for 1998 with preliminary data for 1999.³ These data indicate that the number of establishments rose between 1986 and 1996 but declined during the crisis (1997-1998). Preliminary data (not shown in Table 1) indicate the number of establishments increased in 1999.

¹ These data are derived from industrial statistics from the Central Statistical Agency of Indonesia and are based upon the estimates made by Takii and Ramstetter (2000).

² Timmer (1999) makes these estimates. The inclusion of leather hardly affects the outcome as leather accounted for just 0.6 per cent of employment and 0.3 per cent of output in manufacturing in 1996 (Takii and Ramstetter 2000).

³ Downloaded from the official homepage of Indonesia's Central Statistical Agency (*Badan Pusat Statistik*): www.bps.go.id/ These data appear to include smaller establishments.

However, as a percentage of total establishments, the industry's slide continued, indicating consolidation in the number of plants through 1999.

It is useful for analytical purposes to treat textiles and apparel as distinct manufacturing sectors as factor-intensities are quite different between the two. The manufacturing census data for all medium and large establishments distinguishes textiles (ISIC 321) from apparel (ISIC 322). These data indicate that textiles is the larger sector, accounting for about 60 per cent of employment and 75 per cent of value added in the combined industry in 1998. Value added per worker (and, implicitly capital stock per worker) is higher in textiles than in apparel and this is reflected in estimates of average labor productivity in the two sectors.⁴

Export Orientation and Export Performance of TTP

What is striking in comparison is that apparel (ISIC 322) is far more export-oriented than textiles (ISIC 321). The export propensity (export to sales ratio) for establishments in the two sectors categorized by ownership characteristics for 1992 and 1994, for all categories is always higher in apparel than in textiles, and, except for heavily-foreign establishments is frequently two or three times as high.⁵ For 1995, locally owned apparel establishments, on average exported 14.4 per cent of sales compared with just 5.3 per cent for textiles and foreign owned establishments exported an average of 72.3 per cent of sales compared with 35.6 per cent in textiles.⁶

Textiles and apparel emerged as leading export sectors in the 1980s, with trade liberalization spurring the sectors' increased export-orientation. Although the textile sector has always been the larger of the two industries, from an export standpoint, apparel has been the more important sector in terms of direct foreign exchange earnings. However, the textile industry produces a range of intermediate products that are important inputs into garment production. Therefore, in analysis of export performance of the two sectors it is important to keep in mind that

⁴ Takii (2002) estimates average labor productivity to be 2.1 and 5.5 million Rupiah per worker in local and foreign textile plants in 1995 compared to 1.9 and 3.2 million Rupiah per worker in local and foreign apparel establishments.

⁵ Takii and Ramstetter (2000) divide establishments into local (less than 10 per cent foreign ownership), minority foreign-owned (10 per cent or more but <50 per cent), majority foreign-owned 50 per cent or more but <90 per cent) and heavily foreign-owned (90 per cent or more).

textiles may indirectly contribute to export growth as inputs into the apparel that is produced for markets abroad. The extent to which the two sectors are integrated is limited. As in many other developing countries, the textile segment of the industry has tended to be protected by high tariffs (and, prior to reforms in the late 1980s, by quantitative restrictions). Exports of apparel, in order to be competitively priced, require inputs that are priced at international prices and, in order to achieve this, a duty draw back scheme is employed in order to provide apparel exporters the necessary imported inputs at world prices. The elimination of most quantitative restrictions and the lowering of tariffs on textile products has spurred some integration between the two sectors, but at present there are still “gaps” in the production chain (such as high quality finishing of fabric) and protection remains in place for chemicals and other inputs. Unfortunately, the duty draw back and value-added tax scheme lead to a situation where firm’s that use many domestic components are at a disadvantage. Hence, the present system of draw backs and exemptions for exporters tends to favor use of imported inputs.⁷

Two sources of data on export performance of these two important industries will be drawn upon. The first is Statistics Canada, a database compiled by the Canadian National Statistical Agency, that reconciles import and export statistics by making adjustments for re-exports (particularly from Singapore and Hong Kong). These data are presented in **table 2** for various years beginning in 1980 up through 1997, the first year of the crisis.

⁶ Takii (2002) provides the estimates of export propensities in 1995.

⁷ Ianchovichina, Martin and Fukase (2000) point out that this has also been the case in China, where there has been heavy reliance on high protective barriers in textiles and import duty exemptions on imported inputs that has led export processing industries not to integrate with industries supplying domestic inputs. China’s entry into WTO and tariff reforms are likely to change this situation rapidly however.

Table 2 - Labor-Intensive Manufactures in Indonesian Merchandise Exports (Million Current \$US)

	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
65 Textile yarn, fabrics, made-up art., related products	98,1	364,4	1.435,8	1.990,3	3.091,0	2.853,2	2.665,6	2.915,6	3.086,4	2.450,2
82 Furniture and parts thereof	5,3	12,9	300,1	396,7	507,1	694,8	787,7	873,2	981,2	773,4
83 Travel goods, handbags and similar containers	4,8	15,7	35,1	49,6	68,1	84,2	71,2	92,2	95,6	84,8
84 Articles of apparel and clothing acc.	559,5	916,2	2.877,6	3.495,2	4.536,5	4.762,8	4.474,4	4.850,0	5.357,7	4.837,7
85 Footwear	2,6	10,3	600,3	1.027,3	1.354,7	1.690,3	1.881,4	2.048,5	2.236,8	1.543,4
89 Miscellaneous manufactured articles, n.e.s.	35,5	206,5	489,0	496,5	697,3	944,3	1.438,1	1.278,8	1.592,1	1.237,5
Total	705,7	1.526,0	5.737,7	7.465,5	10.255,7	11.029,6	11.318,4	12.058,4	13.349,8	10.927,1
Percent Textiles and Apparel (SITC 65 and 84)	93,2	83,9	75,2	73,6	74,4	69,1	63,1	64,4	63,3	66,7

Source: Statistics Canada, World Trade Analyzer Database.

These data clearly reveal that these two sectors contributed the bulk of labor-intensive manufacturing exports and exhibited spectacular growth rates in the decade of 1980-1990. Even during the 1990s, the share of labor-intensive manufactured exports of the two combined remains above 60 per cent. Growth continued to be extremely rapid between 1990 and 1992, with a near doubling of exports in each sector. However, growth begins to turn negative in 1993 and 1994, perhaps reflecting a deterioration in Indonesian competitiveness and a slowdown in investment in these sectors associated with uncertainty regarding the outcome of the Uruguay Round negotiations. Growth is resumed in 1995 and 1996 reflecting some improvement in market access with the completion of the Uruguay Round and the first stage of liberalization under the Agreement on Textiles and Textile Products. In 1997, exports from both sectors decline rather sharply with the onset of the Asian crisis.

The second set of data is from the Central Statistical Agency for the years 1993-2001. The export values for nine 3-digit categories of textiles and for seven 3-digit categories of apparel are reported upon (**table 3**). However, the data for the years 1997 to 1999 are not strictly comparable to the data from 1992-1996 or 2000 to 2001 as a result of a change in export documentation that took place.⁸

⁸ James (1998) provides a detailed discussion of the problems introduced by the PEBT (Pemberitahuan Ekspor Barang Tertentu) form. Magiera (2000) provides estimates of exports adjusted for PEBT for the years 1997 and 1998 but does so at the 2-digit level.

Table 3 - Exports of Textiles and Apparel Products (million US\$, current prices) 1993-2001

SITC-3 Digits	Description	1993	1994	1995	1996	1997*	1998*	1999*	2000	2001
Textile										
651	TEXTILE YARN	369,7	678,5	813,1	912,0	763,3	889,5	1.178,0	1.326,8	1.244,2
652	COTTON FABRICS, WOVEN	342,3	316,3	319,9	346,1	299,1	292,5	372,8	451,4	430,1
653	FABRICS, MAN-MADE FIBRES	1.190,8	1.116,7	1.179,8	1.160,6	854,0	906,4	1.013,4	1.118,5	994,4
654	OTH. TEXTILE FABRIC, WOVEN	19,4	7,3	4,8	4,4	6,6	3,7	3,7	3,8	2,4
655	KNIT, CROCHET FABRIC NES	30,9	35,5	38,5	38,5	29,7	19,9	42,8	76,9	61,5
656	TULLE, LACE, EMBROIDRY, ETC	333,6	61,4	60,9	46,0	51,0	37,0	66,5	99,5	67,7
657	SPECIAL YARN, TEXTILE FABRIC	94,2	92,4	110,5	114,9	107,9	99,7	142,4	174,8	147,4
658	TEXTILE ARTICLES NES	206,4	175,1	176,9	194,9	125,1	96,9	173,3	226,8	237,5
659	FLOOR COVERINGS, ETC.	29,4	18,8	18,9	23,7	18,0	14,7	36,0	28,6	27,0
Total Textile		2.637,7	2.581,0	2.713,3	2.831,1	2.254,8	2.359,2	3.019,0	3.585,1	3.202,0
Apparel										
841	MENS, BOYS CLOTHING, X-KNIT	960,7	948,3	1.049,7	1.131,6	878,2	942,9	1.169,0	1.385,9	1.253,5
842	WOMEN, GIRL CLOTHING, X-KNIT	1.003,5	852,7	889,0	958,9	858,7	692,3	1.043,1	1.294,8	1.213,3
843	MENS, BOYS CLOTHING, KNIT	266,8	233,4	270,3	272,2	237,7	192,8	326,5	317,1	275,1
844	WOMEN, GIRLS CLOTHING, KNIT	284,6	216,6	235,6	237,3	171,1	113,1	231,4	319,5	317,9
845	OTH. TEXTILE APPAREL, NES	806,7	746,3	709,2	759,3	578,2	542,9	880,8	1.130,2	1.180,5
846	CLOTHING ACCESSORIES, FABRIC	79,5	81,0	87,7	94,6	61,0	34,0	94,9	114,4	104,2
848	CLOTHING, NONTEXTILE, HEADGEAR	111,3	127,3	134,7	137,5	118,6	112,3	121,8	172,2	186,0
Total Apparel		3.502,1	3.285,6	3.376,2	3.591,4	2.903,5	2.630,3	3.057,5	4.734,1	4.530,5
PEBT						2.144,5	2.298,0	383,7	1,2	
Total		6.139,8	5.706,6	6.089,5	6.422,5	7.303,5	7.287,5	7.180,2	8.420,3	7.732,5

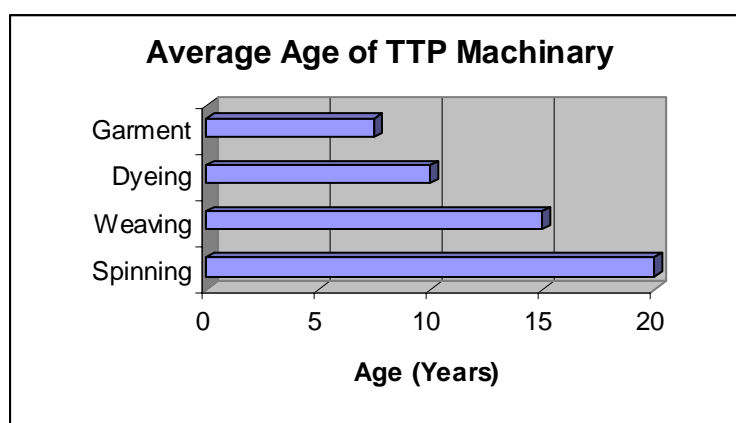
*Data are not strictly comparable with other years and growth rates and shares of product groups are also not strictly comparable.
Source: Central Statistical Agency, *Export Statistics*, Yearbook 1992-1996, Ministry of Industry and Trade; Directorate General for Textiles & Textile Products

In the years prior to the crisis (1993-1996) among the nine textile product groups, exports of textile yarn (SITC 651) are by far the most dynamic, with the other eight textile product sectors cumulatively recording negative growth in export value. In the post-crisis years, once again the data are comparable (also with the earlier years in the sample) and reveal a strong performance in exports (comparing 1996 and 2000) in at least six of the product groups. However, the world recession in 2001 is reflected in the downturn in eight of nine product groups compared with 2000.

The apparel sector performed sluggishly in terms of export values during the pre-crisis period reflecting restrictive conditions in global markets under the MFA up to 1995 and the limited liberalization of quotas in the first years of the Uruguay Round Agreement. There is also the case to be made that Indonesian producers were affected by higher domestic costs, rising politics + social instability and the emergence of new competitors in the international markets. By the year 2000, it is evident that apparel exports responded very positively to the realignment of the Rupiah, with all sectors showing strong growth in 2000 compared with 1996. In 2001, in contrast, only 2 product groups showed increases in export values, with declines in all the other categories. Hence, in 2001, both textiles and apparel were adversely affected by the global downturn.

The reasons for the sluggish export growth performance in the post-1992 years leading up to the crisis are 1) private investment in these sectors began to slow down in 1992 and 1993 evidenced by reduced imports of textile machinery and its increasing vintage (see graph 1) ; 2) the creation of the North American Free Trade Agreement (NAFTA) led to strong trade diversion in textiles and apparel away from East Asia and towards NAFTA members; 3) the de facto pegging of the Rupiah to the US dollar coupled with massive capital inflows into the economy led to real appreciation and undermined the profitability of these sectors; 4) the promised liberalization under the Uruguay Round Agreement in the WTO was slow to materialize.

Graph 1 Machinery Age in the TTP Sector 2002



Source: Data Consult (based on survey data from Sucofindo
Quoted in Indonesian Commercial Newsletter 25 th June 2002, page 40

Production Volume and Role of Foreign Investment in TTP

In spite of this, data on production volumes for textile fibre, yarn and fabric in physical units indicate production continued to grow during the crisis years (1997-1998) and in the recovery (1999-2000) and output volume was almost 27 per cent higher in 2000 than in 1996.⁹ Moreover, the volume of production of apparel products likewise increased by almost 28 per cent in 2000 compared with 1996. This growth in production took place through some investment in

⁹ Data on production volumes are from the Directorate General for Textiles and Textile Products, Ministry of Industry and Trade (2001).

machinery, but also through increased use of existing capacity.¹⁰ The amount of capital investment in the two sectors is reported to have grown in nominal terms by a little over 2 per cent per annum between 1995 and 2000, but it is difficult to reach any conclusion on the real value of such investment without detailed data on composition and prices of the capital goods involved.¹¹

Before turning to the changing international trade environment, the following section will focus on domestic problems facing TTP producers in Indonesia. In order to understand the evolving competitiveness of the TTP industry in Indonesia, it may be useful to consider data on the size and scale of production and relative labor productivity by ownership category. The basic data on establishment size using average employment and value-added per establishment as size proxies in four different ownership categories and overall are presented in **table 4**.

The four ownership categories are: 1) minority foreign owned establishments, i.e. those with 10 or more but less than 50 per cent foreign equity shares; 2) majority foreign owned establishments, i.e. those with 50 or more but less than 90 per cent foreign equity shares; 3) heavily foreign owned establishments, i.e. those with 90 per cent or greater foreign equity shares; and 4) locally owned establishments, i.e. those with less than 10 per cent foreign equity shares.¹²

Table 4 - Plant Size by Ownership Category in Indonesian Textile and Apparel Industry, Various Years

Table 4 - Plant Size by Ownership Category in Indonesian Textile and Apparel Industry, Various Years													
		Employment per Establishment (number)				Value Added per Establishment Current Prices				Value Added per Employee Current Prices			
		1987	1990	1995	1998	1987	1990	1995	Current Prices	1987	1990	1995	1998
Minority Foreign Owned (a)													
321	Textiles	459.0	592.0	836.0	813.0	1.2	4.4	10.9	22.7	3.8	7.0	17.1	25.7
322	Apparel	751.0	491.0	1147.0	1169.0	0.8	1.3	17.9	22.5	1.5	3.6	9.3	16.5
Majority Foreign Owned (b)													
321	Textiles	818.0	832.0	849.0	704.0	6.2	9.2	21.3	79.9	10.7	10.2	24.7	94.4
322	Apparel	78.0	406.0	736.0	629.0	0.4	2.0	4.6	17.2	4.7	3.9	6.6	34.2
Heavily Foreign Owned (c)													
321	Textiles	981.0	1114.0	646.0	664.0	7.3	10.7	6.5	35.1	7.2	4.3	7.6	49.2
322	Apparel	*325.0	429.0	643.0	745.0	*0.4	2.0	6.6	14.3	*2.1	5.9	9.8	23.0
Locally Owned (d)													
321	Textiles	136.0	193.0	241.0	263.0	0.4	1.0	3.0	6.5	1.7	3.2	5.2	14.6
322	Apparel	114.0	127.0	135.0	169.0	0.4	1.0	0.8	2.4	1.9	7.3	4.3	7.9
Total Establishments													
321	Textiles	151.0	211.0	265.0	286.0	0.5	1.2	3.5	8.9	1.8	3.3	6.8	17.1
322	Apparel	118.0	135.0	184.0	206.0	0.4	1.1	1.1	3.2	1.9	7.2	4.5	8.9

Source: Rametetter and Taki (2000).

Notes: *Indicates data are for 1998 not 1997. Backcast data from the Central Statistical Agency were used to calculate the values reported above.

(a) Minority foreign owned establishments have 10 or more but less than 50 per cent foreign equity.

(b) Majority foreign owned establishments have 50 or more but less than 90 per cent foreign equity.

(c) Heavily foreign owned establishments have 90 per cent or more foreign equity.

(d) Locally owned establishments have less than 10 per cent foreign equity.

¹⁰ Data show capacity use rose to 82 per cent in 2000 compared with 79 per cent in 1996. The number of machines in the two sectors was 13 per cent greater in 2000 than in 1996, an increase of over 900,000 machines (Ministry of Industry and Trade, 2001, *ibid.*). A potential problem with the data on machinery and capacity is that there is no mention of depreciation or retirement of old machinery.

¹¹ Data are from Ministry of Industry and Trade 2001, *ibid.*

Establishments with foreign ownership of 10 per cent or more are larger in size and scale of production than locally owned firms in both textiles and apparel. In 1995, for example, employment per plant was 3.4 times greater in textile establishments and 4.7 times greater in apparel establishments with 10 per cent or greater foreign ownership shares than in locally owned plants. Scale of production (value added) per establishment was 4.9 times greater in plants with foreign ownership of 10 per cent or more than in locally owned plants in textiles and was 10.5 times greater in apparel plants with foreign ownership of 10 per cent or greater than in locally owned apparel establishments. Relative productivity per employee was 3.1 times greater in textile plants with foreign ownership of at least ten per cent than in local plants and was about 2 times greater in apparel factories with foreign ownership of at least 10 per cent than in locally owned apparel factories.

Thus, although the 108 textile plants and 106 apparel plants with foreign ownership of at least 10 per cent account for only 4.5 per cent of all establishments in each sector, they account for 13.8 per cent of employment in textiles and 17.3 per cent of employment in apparel in 1995. Finally, the foreign owned plants accounted for 18.8 per cent of textile value added and 33.1 per cent of apparel value added in 1995. These characteristics of foreign owned establishments become even more pronounced when looking at the most recent figures. Hence, the economic importance in production and employment and the relatively high productivity of establishments with foreign ownership must be taken into account in designing policies.

In section V below, we will consider in more detail what has been occurring in terms of investment and production using import data from 2000 and 2001 and interpolating what this might imply for Indonesia's preparedness for a quota-free trading environment starting in 2005.

¹² See Takii and Ramstetter (2000) for detailed industry analysis of ownership and size characteristics of manufacturing establishments.

Supply Side Problems and Challenges

As noted earlier, an important underlying theme of this paper is the demand and supply side ‘squeeze’ confronting producers. Against the background of a liberalized international market, Indonesian producers must now reconcile falling unit values against rising domestic transaction costs

The CPI index shows that general prices increased by around 12.6 per cent in 2001.¹³ Other noteworthy increases in the CPI for the same year include electricity tariffs (33 %), motor-vehicle fuel (26%), diesel fuel (50%), water charges (16%) and transport costs (16%). Labor also became much more expensive in 2001, with the provincial administrations in Jakarta and Bandung hiking minimum wages by 39% and 34% respectively

The rising costs of production, transportation and distribution can be sourced to a broad range of factors. For a number of these factors there is little that government can do to minimise the impact upon business. For example, with the scaling back of subsidies, domestic fuel prices are largely a function of international prices. For other factors, government action will take some time to have a material impact upon firm level cost structures, for example privatization and deregulation of ports and telecommunications, or a comprehensive restructuring and reorganization of the customs service.

There are a number of other factors, where government action can have an immediate impact upon TTP producer costs. In this section three such costs are considered: the burden of local fees and charges, labor related costs and the imposition of VAT on imported cotton.

Also in this section consideration is given to quality issues: i.e. how local producers can better compete with higher quality products. Again, there is a range of factors that influence production quality. Nevertheless the approach here is to consider one area where government can

¹³ The CPI is based upon consumer spending behaviour, and therefore represents an imperfect measure of the input costs confronting producers. It nevertheless provides some useful general indications of the rising costs of production. Subsidies for consumers suggest that changes in the components of the CPI may understate the price increases confronting producers.

have an immediate impact: specifically, through the reform and commercialization of the Ministry of Industry and Trade's Textile Research Institute (TRI) in Bandung.

Much of the empirical material presented in this section was collected during a fieldtrip to Bandung, West Java by two of the authors in late 2000. West Java was chosen as the location for the fieldtrip as the province accommodates over 50% of the nation's TTP producers, and most of those producers are clustered around the city of Bandung.

Decentralization: The Increasing burden of local levies and taxes.

The imposition of local levies and taxes does not represent anything new for textile and garment producers. Many such charges are valid and appropriately imposed at the local level (e.g. road lighting, building licenses, planning permits etc).

Many others however, have little or no legal basis and amount to nothing more than 'nuisance taxes'. In most cases, these nuisance taxes are actually user benefit charges that provide little or no material benefit to those making the payment. For example, a number of textile producers interviewed reported that they must pay *retribusi*¹⁴ levies to the local government for the right to park vehicles in their own premises, or to install lightening rods. These examples can be multiplied many times over. In each case it is difficult to establish what actual service or benefit that is being provided by the local government.

Since decentralization formally commenced at the beginning of 2001, the burden of paying local levies and charges has increased substantially. Emboldened by the recent enactment of the decentralization laws (Laws 22/99 and 25/99), as well as the amendment of the law 18/1997 on local taxes and charges to become Law 34/2000, local governments throughout the country have been issuing many new regulations designed primarily to raise locally sourced revenues. The local governments in West Java, at both the district and provincial level have been particularly energetic in issuing new revenue raising local regulations.

¹⁴ Retribusi = user benefit charge.

Part of the problem is the institutional arrangements in place to determine the legality of local revenue raising regulations. Prior to decentralization local governments were constrained to a prescribed list of local taxes and charges as determined by Law 18/1997. This helped to reduce the cost of doing business and trade, particularly in the regions. With the passage of Law 34/2000, local governments are now authorised to develop new taxes and charges beyond that previously prescribed by Law 18/1997 (albeit on the basis of some vaguely defined criteria).¹⁵

More importantly, the onus of responsibility for determining the legality of local regulations has been returned to the central government. All that is required for the local government is to submit the proposed regulation for review by an evaluation team led by the Ministry of Home Affairs. If a period of one month elapses and there is no objection from the central government, the local regulation becomes immediately effective. The problem with this system is that only a fraction of local regulations are being submitted to the center, and the review team is inadequately resourced to handle even these reviews, let alone if all regulations are submitted.

The net result is that there are many regulations burdensome to business that are either not being detected at the center, or given the delays in the review process, are becoming immediately effective.

Nuisance taxes and charges appear to be a particular problem for textile and garment producers in Bandung, West Java. There have been frequent reports in the media that factories have been relocating to other provinces, in particular Central Java, where the regulatory environment is considered to be more conducive.¹⁶ Surveys of producers in other provinces suggest that nuisance local taxes and charges are less of a problem.

Many problem regulations confronting textile and apparel producers in Bandung target employment and labor related activities. See for example the planned regulation from the District

¹⁵ It is interesting to note that according to analysis by the KPPOD (Regional Autonomy Watch – a body set up by the Indonesian Chamber of Commerce to monitor the impact of new local regulations upon the business climate), almost all problem local regulations tend to be those not prescribed nor ‘listed’ by Law 18/1997.

¹⁶ For example see ‘Perusahaan garmen Jabar mulai relokasi’, *Bisnis Indonesia*, 12 April 2002 page 9.

(Kabupaten) of Bandung as summarized in Box 1 below. The draft of this planned regulation was presented to the authors during their fieldtrip to Bandung in November 2001.

Box 1. An example of a burdensome local regulation in the District of Bandung
Retribusi Pelayanan Bidang Ketenagakerjaan
(*Employment service benefit charges*)

This proposed regulation represents a good example of the many types of nuisance taxes and charges being imposed upon Indonesian producers by local governments. It has been designed specifically to extract a number of fees from firms that either employ people, or provide employment services. As the case with many other retribusi regulations (i.e. user benefit charges), there appears to be little or no link between payment and services provided. In this case, the service provided is vaguely described as providing *pembinaan* (guidance) and *pengawasan* (supervision). For example, the regulation purports to provide a range of services such as the issuance of licenses for foreigners to work in the company (US \$ 100 per month), ‘guidance’ on industrial relations matters, supervision of worker safety and welfare, employment ‘supervision’ and the provision of training facilities.

The regulation carries a series of charges for the supervision of machinery safety. A yearly fee is also mandatory if women work at night. Depending on whether the company is capital, labor or management intensive, a fixed proportion of the monthly wage bill must be set aside for a ‘mandatory workers training levy’ (*iuran wajib latih tenaga kerja*). In addition, any firm outsourcing its training activities to private sector providers must pay yearly fees to the local government. Other fees are imposed upon surrender of company documents to local authorities, and the provision of worker welfare facilities, amongst many others.

Another problem confronting textile and garment producers in Bandung is the increasing overlap across levels of government in the imposition of charges. Lower levels of government are now imposing levies that were formerly and exclusively imposed by the central government. This is occurring particularly at the district level, on matters relating to labor and employment. The textile association (API) has recently made a list of overlapping taxes and charges confronting textile and apparel producers in Bandung. These include taxes on street lighting and access to underground water and a range of charges on the use and installation of machinery.

VAT on Cotton Imports

Introduced in 1985 the VAT has now become an important component in the overall national tax effort. The standard VAT rate is ten percent and has remained at that level since inception. Unless goods and services are otherwise exempted, the standard rate is imposed on the selling price on goods and services at all stages of the production and distribution process, as well as on the duty-inclusive price of imports.

If implemented in a transparent and efficient manner, the tax should not ultimately represent a tax on production or importing activities:

- Under current VAT arrangements, exports are zero-rated meaning that a producer can get restitution if imported goods (upon which VAT has been paid) are used for export purposes.
- Importers and upstream producers can transfer the VAT burden to subsequent stages of the production and distribution process by making the necessary adjustment to the price on the sales invoice. Hence the VAT is ultimately embodied within the final consumer price, and all other elements in the supply and distribution chain remain in a revenue neutral position in regards to the tax.

VAT on imports is a reality for most Indonesian producers. The ten percent rate particularly be paid out of working capital, and can therefore has a major impact upon firm cash flows, if there are long delays in the restitution process. This is particularly the case for textile producers importing large amounts of cotton.¹⁷ Since the VAT was first implemented in 1983, imported cotton has been interpreted to be VAT free. Recently this interpretation was reversed, but was done so retroactively, leaving producers who had on-sold their material with little avenue to recover VAT outlays.

However the more general problem confronting producers is the delay in receiving restitution. According to regulations this should be within 7 days, but most producers interviewed for this study maintain that it usually takes many months, and only then after informal payments have been made.

Labor Problems

During fieldwork interviews with producers, much attention focused on the increasing costs and other problems associated with labor and employment. Producer concerns fall into three broad categories:

- The large and economically unsustainable rate of increase in minimum wages as determined by local and provincial governments

- The rising activism and militancy, and in some cases lawless behavior, of union and other labor groups
- Other laws and regulations that diminish the incentive to invest in labor intensive activities, such as the ministerial decree on severance pay (see below)

Given the labor intensive nature of the textile and apparel sectors, in particular the latter, wages are an important element in overall cost structures for TTP firms. As noted by Manning (2000: 11), minimum wages have been an element in labor policy since the 1970s, but only really began to affect wages in the early to mid 1990s. Initially centralized (with input from the provinces), the authority to determine minimum wages has been devolved to the regions as part of the country's decentralization efforts.

For TTP producers, this determination of minimum wages from outside of the sector, has discouraged workplace negotiation and collective bargaining, and in so doing, blurred the link between productivity improvements and wage increases. TTP firms are forced to pay higher salaries not as a reward to labor for higher productivity, but as a result of government decree.

Under present arrangements, Provincial Governments (level 1) determine the minimum wage for the province, and District Governments (level 2 – Kabupaten/Kota) can then choose to raise the district minimum wage above that provincial floor. The fear of labor-intensive producers such as those in the TTP sectors, is that local leaders, keen to shore up short run political support, will raise minimum wages with little regard for the competitiveness of local firms, and for the broader regional and national economic interests.

Recent increases in minimum wages have been particularly burdensome for the TTP industry. In Jakarta and Bandung, which together accommodate a majority of national TTP producers, minimum wage increases were respectively 49 percent and 17 percent in 2000, and 39 percent and 34 percent in 2001. With CPI increases over these two years for the two regions ranging from 7-13 percent, such increases translate into sharp real increases in minimum wages. Whilst this may, at least at face value

¹⁷ For climatic reasons, almost all of the industry's cotton inputs are imported. Only a small fraction of total cotton

and in the short term, represent good news for TTP workers, it remains to be seen how long TTP producers can absorb this high rate of annual increase in real wage costs, before rentrenchment becomes necessary.

The key variable missing from the minimum wage equation in Indonesian is productivity. Most TTP producers interviewed said that they would be happy to pay higher salaries, if such salary increases could be justified by productivity improvements. Up to date and reliable data that can be used to compare Indonesian apparel wage and productivity levels with key competitors, such as China are difficult to find. However an interesting piece of information drawn from several Indonesian producers with either direct (ownership) or indirect links with factories in China, is that one worker, working the same amount of hours in the day, using the same machinery to produce a similar unit of output, a pair of jeans, would produce 16 pairs in a Chinese factory, as opposed to 8 pairs in an Indonesian factory. Such information, of course has yet to be substantiated. The general view from those surveyed, is that with recent increases in minimum wages, salary levels across apparel sectors in China and Indonesia are more or less comparable, however Chinese workers are about twice as productive, suggesting unit labor costs are lower in China.¹⁸

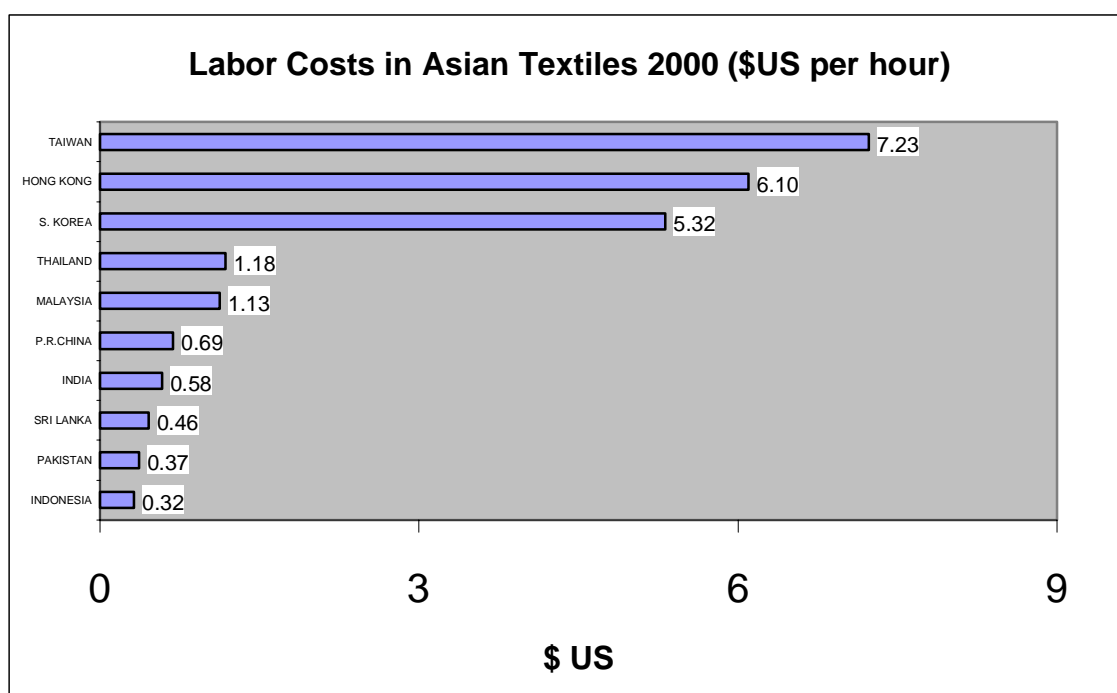
Unlike apparel, data is available for cross-country comparisons of labor costs in textiles. Based on the latest data made available by Werner International, graph 2 below shows that in 2000, with an hourly labor cost of USD 0.32, Indonesia enjoyed a significant cost-advantage over China (USD 0.69 per hour) and other competitors in the region. However care must be taken when interpreting this data. *Firstly* much of Indonesia's cost advantage would have been eroded over the past 2 years by the sharp hikes in minimum wages, combined with the increase costs associated with other national laws and regulations on labor and employment (e.g, the severance pay decree, see below) and also the increasing burden of local levies and charges (see above). In addition, there is now widespread concern

inputs are sourced from plantations in South Sulawesi.

¹⁸ Another interesting piece of information drawn from API West Java members is that they flew, at their own expense, the Bupati (Mayor) of the District of Bandung – a district which accommodates a large number of TTP producers in West Java – to China so that he can see first hand the higher productivity (and therefore lower unit costs of labor) in Chinese TTP factories. API maintains that this had little impact on the Bupati, as a decision was later made to increase minimum wages within that district above the provincial floor.

about a new proposed manpower law (*RUU Ketenagkerjaan*) that seeks to improve worker benefits, and therefore increases employment costs. *Secondly*, the data describes labor costs, not unit costs of labor, i.e. the cost per unit of output. China's higher levels of labour productivity in textiles may well compensate for the higher costs of employment. *Thirdly*, textiles are a more capital intensive activity than apparel, hence wage costs are less important in determining cost competitiveness.

Graph 2 Comparisons in Labor Costs in Year 2000



Source: Werner International (2000)

Beyond problems in minimum wages are widespread concerns about a number of other government interventions in labor policy. This is not to suggest that all interventions are unwelcome or unnecessary. In the post-Suharto era there have been a number of new laws and regulations enacted to conform to long standing ILO conventions, which according to Soesastro *et. al.* (2001: 38) represent an ‘overdue and welcome development in providing greater protection to labor against abuses by employers.’ However they go on to note that ‘in their zeal to redress past injustices against labor, government officials have gone to the other extreme by guaranteeing labor greater entitlements than warranted and which one cannot find anywhere else in the world.’

Examples of this over-zealous approach to labor policy include a decree from the Ministry of Manpower (150/2000) on severance pay, and also a draft employment law that at the time of writing was being debated by the parliament - see Box 2 below for a description of the more controversial elements of this proposed law.

Box 2 The Proposed New Law on Employment

(Rancangan UU tentang Pembinaan dan Perlindungan Ketenagakerjaan)

At the time of writing the final draft of this report (July 2002) the Indonesian parliament was considering a new draft law on employment. The draft pulls together and builds upon some recent, and in some regards controversial, labor regulations and rulings. It has been sharply criticized by the business community as too pro-labor, and acts as another disincentive to invest in the sector. Some of the more controversial elements of the law are described below:

- As per Kepmen 150 (described below), workers leaving employment voluntarily must be paid severance and other benefits such as unused annual leave, housing and medical benefits according to period of employment. For example a worker employed for six years can claim approximately in 10 months in 'severance' and 'service' payments, in addition to the other benefits described above.
- Employers must continue to pay salaries to workers on strike, conditional to the workers notifying the employer one week prior to commencing the strike. Employers are banned from dismissing striking workers.
- Night-shift working hours have been limited to a 35 hour week (5 less than current arrangements). Other benefits for night-shift work are stipulated in the law, such as food, transportation, milk etc.
- Workers found guilty of criminal activity against their employer can be legally dismissed, must still be paid severance and other benefits such as unused annual leave, as well as housing and medical benefits according to period of employment. However before workers can be dismissed, criminality must be proven in a court of law.
- Workers appearing in court, or being detained whilst awaiting court, for crimes not associated with their employer, must still be paid 50% of their salary.
- Sanctions in the law appear to be unnecessarily heavy. For example, up to 4 years jail/Rp 500 million fine for banning breastfeeding, up to 1 years jail/Rp 50 million fine for not providing breastfeeding facilities, up to 4 years jail/Rp. 500 million for not providing training facilities and up to 4 years jail/Rp 400 million for no employing expatriates without all necessary permits.

The severance pay decree from the Ministry of Manpower, noted above, substantially increases the severance pay obligations to terminated employees. Most controversially, these benefits are extended to those leaving work voluntarily, as well as those who are dismissed for criminal activity. TTP producers are concerned about a number of aspects of this decree:

- Total severance payments have been increased, such that an employee having worked for 6-7 years would receive the equivalent of almost one year's salary (the equivalent 11.5 months) upon termination.¹⁹ Those employed for 3-4 years would be eligible for the equivalent of 7 months pay, whilst 1-2 years employment entitles the worker to 2-3 months pay.

- This clearly provides an incentive to frequently change employers. TTP producers are concerned that any new entrants could attract workers from existing establishments, at significant cost to the incumbants, particularly if a large number of workers are to be employed by the new entrant.
- The disincentive to steal or undertake other criminal activity is clearly diminished.

Aware of these and other concerns, the Ministry of Manpower attempted to issue a new decree (78/2001) which reduced and relaxed many of the severance obligations for employers. In mid-2001 there was widespread, and in some cases violent, protest action against this new decree. In Bandung protests by militant labor targeted TTP producers and many factories were temporarily closed as a result.

TTP producers and the broader business community were disappointed in the reactions from both the Central and West Java Provincial Governments. In Bandung for example, after widespread violent actions by union groups, which included the burning of lower level official's private cars in front of the Governor's Office (*Gedung Sate*), the Governor announced that the decree would not be implemented in West Java, thus in effect rewarding such lawless behavior. The Central Government later suspended this decree (78/2001), and reactivated Kepmen 150/2000, pending further review.

According to TTP producers surveyed for this study, the Kepmen 78/2001 episode reflects the changing realities in the government-management-labor relationship that has resulted in increased confidence and militancy on behalf of labor groups, which combined with an apparent unwillingness or inability on the behalf of authorities to confront and deal with lawless behavior of the labor groups, has left TTP producers in an increasingly vulnerable position. Along with other labor problems discussed above, this has significantly undermined the attractiveness of investment in the Indonesian TTP sector.

¹⁹ Data prepared by Purbadi & Associates Law Firm for API. All data is based on the assumption of a monthly salary of Rp 1 million.

Quality Issues

An enduring theme in Indonesia's industrial development is the lack of innovatory and design capacity of local producers. Numerous studies have concluded that not only does the capacity to innovate remain low by international standards, but also that Indonesia has failed to fully exploit the various mechanisms for learning through international trade and investment linkages that were so successfully exploited by other developing countries in the region.

Despite the relative openness of the Indonesian TTP sector to international flows of ideas and information, as well as its exposure to domestic and international competitive pressures, there has been no major move up the quality or technology ladder. TTP producers continue to produce low quality - low value added products that compete on price in an increasingly crowded international market.

For example, a continuing problem confronting Indonesian textile producers is that they are unable to penetrate higher end markets due to poor dying and finishing capacity. Similarly, most apparel producers have little or no R&D and design capacity, and merely respond to orders that typically provide all design specifications and other information required for production. The same is also true for textile producers. There are of course exceptions. There are a limited number of large apparel producers equipped with R&D facilities and produce and market own-brand or own-design products. Similarly, there are a number of smaller textile firms capable of producing high quality fabrics, albeit in limited quantities. Nevertheless the general story holds that overall quality remains low, and this inhibits competitiveness in international markets

There are of course a host of factors that promote, or inhibit, the development of innovatory capacity in the Indonesian TTP sector. Our focus, again, is to consider a particular area, namely the provision of technology/extension services and other technical business development services (BDS), which can be influenced directly and favorably by policy measures and other actions by the Ministry of Industry and Trade.

This is not to suggest that it is purely up to the government to provide such services. Nowadays, best practice calls for the provision of BDS on a commercial basis, and wherever

possible, by private sector operators. This ensures better sustainability and greater efficiency in service delivery. The problem for the TTP sector is that there are very few, local private sector providers of BDS. Much of the technology support infrastructure for this sector remains in government hands.

The discussion below focuses on the major element of this technology infrastructure for TTP producers: the Textile Research Institute in Bandung. As will be noted below, due to severe capacity and management constraints, this government-run institute is considered largely irrelevant to the needs of industry. However through a comprehensive modernization and commercialization effort, this institute could play a useful role in improving the competitiveness of Indonesian TTP products.

MoIT's Textile Research Institute (TRI)

The Textile Research Institute (*Balai Besar Tekstil*) along with the College for Textile Technology (*Sekolah Tinggi Tekonologi Tekstil*) comprise the Institute for Textile Technology in Bandung West Java. The TRI, established by the Dutch in 1922, is now under the control of the R&D Agency of the Ministry of Industry and Trade along with eight other technology institutes each dedicated to a specific industrial sector.

The TRI is charged with a number of tasks, including research on materials, processes and pollution control, the provision of technology extension services (testing and quality control) as well as the provision of training services in machinery use, color dyes, design etc. Given such a focus, and its strategic location in Bandung, the TRI could potentially play a key role in promoting the design and innovatory capacity of TTP producers.

Physical and human resource constraints are major problems for the TRI. Many of the institute's machines are now obsolete. The dyeing machines, for example, were installed in the 1950s and have not been used for years. Save for a few new machines recently donated by international donors, the average age of TRI's machinery is beyond that to be considered useful or relevant to industry needs.

The institute's human capital base is also deteriorating. Budgetary constraints in recent years have resulted in little or no new recruitment. Through attrition, staff numbers have fallen from over 300 a few years ago to around 270 at the end of 2001. Despite being the only technology institute dedicated to one of the most important sectors in the economy, the TRI has few highly qualified or skilled staff. For example, the TRI has only 2 staff with PhDs. A substantial upgrade of human and physical capital is required if TRI is to make a significantly useful contribution to the sector's technological development.

Perhaps the greatest problem confronting TRI is the lack of effective linkages with the private sector. The TRI does provide some services to the private sector, such as testing, quality control and training. According to the TRI's management, in the mid to late 1990s, industry funding contributed about a quarter of the total budget. However the Bandung textile and apparel producers surveyed for this study are dismissive of the TRI.²⁰ and any potential role that it could play in the sector's development. They regard the services offered as poorly matched to the industry's needs. Moreover, they consider the training syllabus as obsolete and the technological capacity of the institute many decades out of date.

Having said this it is important to note that the TRI does have some modern equipment and capabilities in the testing and quality control area (e.g. color fastness, fabric strength), and is therefore able to provide these important services to the private sector. However textile firms interviewed said that they would prefer to send their samples to recognized laboratories in Jakarta as international buyers tend not accept or acknowledge the testing results from the TRI. In other circumstances where the TRI has been used for testing, it is typically not carried out in a time frame acceptable to textile producers.

The key to any possible revitalization program is the development of a more commercially oriented management culture. This would help develop much needed linkages with the private sector. It is these linkages that will determine whether the TRI can play a useful role in the textile

²⁰ Firms surveyed for this report commonly refer to the TRI as the 'museum'.

sector's development, or whether it remains in its present state, that is, dependant upon inadequate central government funding to provide largely irrelevant and obsolete services.

To become more commercially oriented the TRI should begin to view small businesses as paying clients, and not as beneficiaries of charitable support. Currently, there is a budget constraint determining how many small businesses can get access to TRI business development services. When the budget is exhausted, the assistance stops as very few small business clients actually pay for TRI's services. A more sustainable approach would be for TRI to sell their services to small business on a commercial basis. Full cost recovery is something that cannot be achieved overnight, particularly in the present market conditions, and even more so, given the technological and human resource constraints of the TRI. However, what can be achieved in the short term is to initiate a graduated system of cost recovery, perhaps via the use of vouchers.

Budgetary funds freed up by this graduated cost recovery program could be used to extend the outreach of TRI's services for small businesses, or to upgrade the TRI's technological and overall human resource capacity. Sections of TRI that can operate on a full cost recovery basis should be privatized. This will help prevent crowding out possible private sector BDS providers

Another important element of a strategy to make the TRI more commercially oriented and viable is to increase staff productivity. As noted above, the TRI has approximately 270 employees. However, when TRI was visited by the authors at 2 pm on a Thursday, we came across less than 30 staff (and most of those could be considered non technical staff). We were told that most of the staff had already gone home. If the TRI is generate stronger linkages with the private sector then it must by run more like a private sector institution. The incentive environment for staff and management must be improved such that there are real economic benefits to working harder and more productively, to working longer hours, and to developing linkages with industry that will bring in much needed funds.

The best way to achieve this is to deregulate the wages structure of the staff and management. If individual staff or groups of staff work longer and more productively in providing

services to the business clients, then they should be rewarded through higher salaries or bonuses. Likewise if staff are successful at bringing in industry sourced funds to the TRI, then they should be rewarded, perhaps with a finder's fee or a commission. Finally, the most valuable asset of the TRI and the textile college is its land and buildings. There is much unused space in the sprawling complex. Parts of the complex could be leased or sold off to third parties, and the funds generated could be channeled into a much-needed upgrade of the TRI's human and physical capital stock.

International Challenges: Competition, the Global Slowdown and Preferential Trade for Competitors in Major Markets

Recent trends and performance of Indonesian exports of textiles and textile products (TTP) in major markets, particularly the US and Japan are broadly examined in this section. Apparel items dominate Indonesia's exports of the TTP industry in the US market (almost 95 per cent of the total in 2001).²¹ While the proportions of TTP are quite different in terms of exports to Japan, for the two markets combined apparel accounted for 86 per cent of the total in 2001.

Market Share of Indonesian TTP in Major Foreign Markets

The US. Imports of TTP from Indonesia, by 2001 reached about 3.8 per cent as a share of imports in the US. Data were also compiled for imports of textiles (ISIC 321) and imports of apparel (ISIC 322) in order to measure the share in apparent consumption in the US and Japan over the decade of 1989 to 1998. In US consumer markets, the share of Indonesian textile industry products rose from just 0.23 per cent in 1989 to 0.51 per cent in 1998. Similarly, the increase for apparel products is from 0.76 per cent in 1989 to 1.76 per cent in 1998. The increase in the share of US consumption is more or less steady over this entire period. Indonesian products have managed to hold onto market share in 2001 relative to 2000 in the US. In fact, for 8 of the 9 major SITC 3-digit TTP items, Indonesia improved its market share in 2001. However, in no case was Indonesia's share as large as its major competitors and in all but three cases, China also

²¹ James (2002) covers the top 50 non-oil products Indonesia exports to the US and Japan and provides detailed analysis of market share performance through the fourth quarter of 2001.

increased its market share and was a top competitor. The other trend most notable in 2001 is that Mexico

tended to lose market share in the US in six of the main TTP categories of interest to Indonesia, but still retained a much larger market share than Indonesia. Indonesia's competitive position in the US and Japanese apparel markets, differentiated by type of fabric and fiber for all apparel items for the period 1993 through 2001 in the US are now examined. We have disaggregated apparel imports into knit vs. woven fabrics, which in turn are divided into three categories of fiber: cotton, man-made (synthetic), and others. It is interesting to compare market share performance in these disaggregated categories (**tables 5 & 6**) for both value and volume. First, overall Indonesian

Table 5. US Imports of Apparel From All Sources and Indonesia's Import Market Share 1993 - 2001 (Million US \$)

Fabric/fiber type	1993	1994	1995	1996	1997	1998	1999	2000	2001	Growth 1993 - 2001
World										
Knit apparel										
Cotton	5,253.0	6,166.9	7,459.0	8,399.8	10,151.6	12,003.2	13,507.1	15,066.8	15,449.7	194.1
Man-made-fiber	3,476.2	3,949.1	4,417.1	4,472.6	5,766.1	6,626.2	6,947.1	7,643.1	7,676.9	120.9
Other	1,643.9	1,992.3	1,919.4	2,077.4	2,590.7	2,871.9	3,086.1	3,376.7	3,401.4	64.5
Category total	10,573.1	12,108.2	13,795.5	14,949.8	18,508.4	21,501.3	23,542.3	26,086.6	26,529.9	150.9
Apparel of woven fabric										
Cotton	8,587.5	9,263.3	10,264.5	10,557.9	12,043.0	13,602.6	14,426.1	16,071.9	15,360.4	78.9
Man-made-fiber	5,506.6	6,006.8	6,215.8	6,599.6	7,807.6	8,233.2	8,351.8	10,071.8	9,761.7	77.2
Other	5,346.0	5,336.7	5,226.0	5,207.4	5,515.7	5,761.8	5,371.6	6,007.3	5,876.7	9.9
Category total	19,442.1	20,606.9	21,726.3	22,364.9	25,466.3	27,597.6	28,149.5	32,151.0	30,998.8	59.4
Total	30,015.2	32,717.1	35,521.8	37,314.8	43,964.7	49,098.9	51,691.8	58,238.6	57,528.7	91.7
Indonesia										
Knit apparel										
Cotton	126.5	139.8	160.3	194.6	245.3	239.9	236.8	297.9	337.8	167.0
Man-made-fiber	115.5	121.7	130.6	139.3	206.6	210.1	169.2	230.6	252.1	110.2
Other	8.6	8.7	8.6	4.4	4.8	3.8	6.5	6.1	7.2	1054.4
Category total	242.7	262.2	302.4	338.3	456.5	453.6	413.5	541.7	597.0	146.0
Apparel of woven fabric										
Cotton	336.4	354.5	381.3	486.8	562.0	686.8	593.8	602.1	649.2	93.0
Man-made-fiber	312.2	330.8	359.0	369.6	413.9	464.2	523.1	709.9	744.3	136.4
Other	72.6	116.8	126.6	121.1	136.9	137.1	139.6	184.6	202.3	179.5
Category total	721.2	752.1	867.0	977.5	1,126.7	1,190.2	1,256.5	1,496.6	1,595.8	121.3
Total	963.9	1,014.3	1,169.4	1,315.8	1,583.2	1,643.8	1,670.0	2,037.6	2,192.8	127.5
Indonesian Import Market Share in the US										
Knit apparel										
Cotton	2.4	2.3	2.3	2.3	2.4	2.0	1.8	2.0	2.2	-9.2
Man-made-fiber	3.3	3.1	3.0	3.1	3.6	3.2	2.4	3.1	3.3	-1.2
Other	0.0	0.0	0.0	0.2	0.2	0.1	0.2	0.2	0.2	525.8
Category total	2.3	2.2	2.2	2.3	2.6	2.1	1.9	2.1	2.3	-2.0
Apparel of woven fabric										
Cotton	3.8	3.3	3.7	4.8	4.8	4.3	4.1	3.7	4.2	7.8
Man-made-fiber	5.7	5.5	5.8	5.6	5.2	5.6	5.3	7.0	7.6	34.5
Other	1.4	2.2	2.4	2.3	2.4	2.4	2.6	3.1	3.4	153.4
Category total	3.7	3.6	4.0	4.4	4.4	4.3	4.5	4.7	5.1	36.8
Total	3.2	3.1	3.2	3.6	3.6	3.2	3.2	3.6	3.9	19.7

Note: In 2001, \$684 million in imports from all sources were not readily categorized into either knit or woven fabric.

Source: Data are from US Department of Commerce Major Shippers Reports <http://otessa.ita.doc.gov>. Analysis by the authors.

products have fared relatively well in the US market with some fluctuations (notably in 1994 and again in 1998-99 market shares fell). For the entire period growth in US imports from Indonesia exceeded imports from the world and increased in value from 3.2 to 3.8 per cent and from 3.3 to 3.6 per cent in volume. In value terms woven apparel (particularly of synthetic fiber and cotton) clearly was where Indonesia was most competitive. In knit wear Indonesia performed slightly below average for the world and this explains the stagnation or loss of market share in these segments of the industry. It is also clear from the data in table 6, that volumes have been growing

and prices have been declining substantially in the US market as is expected as trade in TTP is undergoing liberalization under the terms of the Uruguay Round Agreement.

Table 6. US Imports of Apparel From All Sources and Indonesia's Import Market Share 1993 - 2001 (Million Square Meter Equivalents)

Fabric/fiber type	1993	1994	1995	1996	1997	1998	1999	2000	2001	Growth 1993 - 2001
World										
Knit apparel										
Cotton	1,651.1	1,819.7	2,160.6	2,451.5	3,016.5	3,604.5	4,230.0	4,703.9	4,820.0	210.8
Man-made-fiber	1,262.2	1,419.1	1,686.5	1,895.5	2,023.7	2,348.5	2,610.8	2,953.8	3,023.4	139.5
Other	396.5	435.3	420.4	503.5	654.3	674.1	737.9	840.9	848.7	114.1
Category total	3,209.7	3,674.1	4,166.5	4,850.7	5,694.5	6,627.1	7,578.7	8,498.6	8,692.1	170.8
Apparel of woven fabric										
Cotton	2,086.5	2,329.2	2,594.4	2,605.5	2,860.5	3,236.5	3,432.3	3,773.3	3,735.9	79.0
Man-made-fiber	1,431.8	1,534.6	1,587.4	1,625.5	1,884.9	2,002.0	2,104.2	2,588.8	2,534.5	77.0
Other	849.3	860.0	772.8	725.5	786.5	835.3	807.4	981.5	942.9	11.0
Category total	4,367.7	4,723.8	4,954.7	4,957.5	5,532.0	6,073.9	6,343.9	7,343.7	7,213.4	66.2
Total	7,577.4	8,397.9	9,121.1	9,518.3	11,226.5	12,701.0	13,922.6	15,842.2	15,905.5	109.9
Indonesia										
Knit apparel										
Cotton	26.2	26.2	32.3	35.2	46.8	51.4	54.3	63.7	67.4	233.7
Man-made-fiber	40.9	44.7	46.6	46.5	71.6	82.1	66.9	89.1	104.2	165.0
Other	1.7	2.0	2.8	2.4	3.5	3.9	4.0	3.5	6.5	217.1
Category total	68.8	72.9	81.7	84.0	122.0	137.3	125.1	156.2	197.1	186.5
Apparel of woven fabric										
Cotton	85.1	80.8	95.4	117.2	128.7	134.5	139.8	140.5	157.2	84.5
Man-made-fiber	85.9	96.5	100.0	94.8	111.3	127.5	139.4	173.9	183.5	111.2
Other	18.5	28.8	29.6	30.5	28.6	30.3	33.0	48.2	50.7	174.1
Category total	190.5	206.0	224.9	242.5	268.7	292.3	312.1	362.6	391.4	105.4
Total	309.6	322.9	358.7	390.1	484.0	536.6	529.4	626.9	734.9	137.4
Indonesian Import Market Share in the US										
Knit apparel										
Cotton	1.7	1.4	1.5	1.4	1.5	1.4	1.3	1.4	1.5	7.4
Man-made-fiber	3.2	3.1	2.9	2.9	3.5	3.5	2.6	3.0	3.4	6.4
Other	0.4	0.5	0.7	0.5	0.5	0.6	0.5	0.4	0.7	48.1
Category total	2.1	2.0	2.0	1.8	2.1	2.1	1.7	1.8	2.3	5.8
Apparel of woven fabric										
Cotton	4.1	3.5	3.7	4.5	4.5	4.2	4.1	3.7	4.2	3.1
Man-made-fiber	5.1	6.3	6.3	5.8	5.9	6.4	6.5	6.7	7.2	19.3
Other	2.2	3.3	3.8	4.2	3.6	3.6	4.1	4.9	5.4	145.9
Category total	4.4	4.4	4.5	4.9	4.9	4.8	4.9	4.9	5.4	24.4
Total	4.1	3.9	3.9	4.0	4.3	4.2	3.9	4.0	4.6	12.1

Source: Data are from US department of Commerce Major Shippers Reports <http://otexa.ita.doc.gov>. Analysis by the authors.

The cotton share of US imports of apparel is approximately 60 per cent and the share of man-made fibre apparel is 40 per cent in volume terms. The greater proportion of US imports of Indonesian products, however, is concentrated in man-made fiber apparel. This is significant because man-made fiber apparel is at the low end of the market and unit prices are generally lower than cotton apparel prices. Prices are proxied by average unit values (**table 7**) which have been declining sharply in the US market over the period 1993 to 2001.

Table 7. US Imports of Apparel From All Sources and Indonesia's Import Market Share 1993 - 2001 (Average Unit Value \$/SME)

Fabric	Fiber	1993	1994	1995	1996	1997	1998	1999	2000	2001	Growth 1993 - 2001
World											
CPI		1,00	1,03	1,06	1,09	1,11	1,13	1,16	1,19	1,23	22,6
Knit apparel											
	Cotton	3,39	3,30	3,27	3,14	3,03	2,96	2,77	2,69	2,61	-22,8
	Man-made-fiber	2,75	2,71	2,84	2,58	2,56	2,50	2,31	2,17	2,07	-24,8
	Other	4,66	4,46	4,33	3,80	3,56	3,78	3,63	3,37	3,27	-29,7
Apparel of woven fabric											
	Cotton	4,12	3,88	3,76	3,73	3,79	3,72	3,64	3,57	3,35	-18,5
	Man-made-fiber	3,86	3,82	3,71	3,74	3,77	3,64	3,44	3,26	3,14	-18,3
	Other	6,29	6,05	6,41	6,81	6,31	6,11	5,77	5,13	5,08	-19,2
Total		3,96	3,80	3,89	3,61	3,52	3,43	3,22	3,08	2,95	-25,5
Indonesia											
Knit apparel											
	Cotton	4,83	5,21	4,94	5,09	4,72	4,14	3,81	3,93	3,15	-34,7
	Man-made-fiber	2,83	2,86	2,72	2,76	2,59	2,27	2,19	2,25	1,97	-30,2
	Other	0,36	0,31	0,19	1,74	1,19	0,83	1,20	1,22	1,06	197,0
Apparel of woven fabric											
	Cotton	3,56	3,68	3,79	3,82	4,07	3,88	3,88	3,60	3,37	-14,7
	Man-made-fiber	3,69	3,34	3,40	3,69	3,36	3,23	3,26	3,42	3,31	-7,9
	Other	3,52	3,96	4,06	3,65	4,12	4,01	3,67	3,21	3,25	-17,1
Total		3,11	3,06	3,09	3,19	2,94	2,71	2,74	2,73	2,43	-21,8

Source: Data are from US department of Commerce Major Shippers Reports <http://otexa.ita.doc.gov>. Analysis by the authors.

US MFN tariffs on man-made fiber apparel are higher than those on cotton apparel and, consequently, producers with preferential tariffs enjoy a significant margin of preference over Indonesian producers. As low-wage producers like China and Vietnam expand capacity in man-made fiber products it is likely that competition will become fierce in the US market for these low-end apparel products. While Indonesia has been able to expand its market share between 1993 and 2001, with lower tariffs facing producers in Vietnam, relaxed quotas for those in China and trade preferences being extended to producers elsewhere, Indonesia may have difficulty in the coming years in competing in the US market.

Japan. In Japan, the share of consumption met by Indonesian textile products rises from 0.10 per cent in 1989 to 0.76 per cent in 1997 before falling to 0.69 per cent in 1998. Similarly, the share of apparel items rises from just 0.12 per cent in 1989 to a peak of 0.87 per cent in 1996, then falls for the next two years to 0.67 per cent in 1998. In 2001, imports from Indonesia accounted for a little under 3 per cent of all TTP imports in Japan. Data for 1996 through 2001 for Japan are available on import values of four broad apparel categories separated by two types of fabric (woven and knit) and three main types of fiber (cotton, manmade and others). In Japan,

unlike the US, there is no significant liberalization under the Uruguay Round Agreement as Japan is not a party to the MFA.

Table 8. Japanese Imports of Cotton Knit Apparel 1996-2001 (Million \$US, Market Share Percent)

Country	Million \$US						Percent Market Share					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
WORLD	3,377.8	2,854.2	2,496.2	2,780.0	3,553.4	3,744.4	100.0	100.0	100.0	100.0	100.0	100.0
CHINA	1,597.9	1,406.5	1,462.4	1,735.0	2,552.2	2,895.2	47.3	52.1	58.6	62.4	71.8	77.3
KOREA	437.8	298.7	293.6	356.3	357.3	283.7	13.0	10.5	11.8	12.8	10.1	7.6
U.S.A.	476.9	348.6	206.8	196.6	172.8	128.2	14.1	12.2	8.3	7.1	4.9	3.4
THAILAND	161.7	132.2	104.9	91.5	87.4	79.5	4.8	4.6	4.2	3.3	2.5	2.1
ITALY	203.5	124.4	85.3	85.4	74.8	70.9	6.0	4.4	3.4	3.1	2.1	1.9
INDONESIA	80.2	75.6	55.5	46.0	45.8	53.2	2.4	2.6	2.2	1.7	1.3	1.4
VIETNAM	44.5	54.3	41.7	39.1	35.5	31.7	1.3	1.9	1.7	1.4	1.0	0.8
FRANCE	54.9	42.4	39.3	42.5	32.4	27.2	1.6	1.5	1.6	1.5	0.9	0.7
UNITED KINGDOM	30.6	26.3	17.2	15.6	15.8	16.9	0.9	0.9	0.7	0.6	0.4	0.5
MALAYSIA	31.9	31.9	17.2	21.0	18.7	15.5	0.9	1.1	0.7	0.8	0.5	0.4
HONGKONG	60.3	55.5	30.7	23.5	24.8	15.4	1.8	1.9	1.2	0.8	0.7	0.4
INDIA	21.5	15.3	14.3	12.3	16.4	14.9	0.6	0.5	0.6	0.4	0.5	0.4
PHILIPPINES	67.5	47.5	23.6	21.1	21.2	14.0	2.0	1.7	0.9	0.8	0.6	0.4
MEXICO	2.4	7.2	9.2	12.9	14.7	11.6	0.1	0.3	0.4	0.5	0.4	0.3
CANADA	8.8	11.7	14.7	10.5	11.0	10.7	0.3	0.4	0.6	0.4	0.3	0.3
OTHER	97.6	96.0	79.9	70.7	72.6	76.0	2.9	3.4	3.2	2.5	2.0	2.0

Source: Data from Japan's Ministry of Finance, analysis by USAID MoIT PEG office.

And the results in the Japanese market are polar opposite to those in the US. Indonesian products experience a sharp deterioration across the board in Japan, with negative value growth and declining market share (**tables 8-13**).

Table 9. Japanese Imports of Man-Made Fiber Knit Apparel 1996-2001 (Million \$US, Market Share Percent)

Country	Million \$US						Percent Market Share					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
WORLD	2,736.0	2,578.8	2,654.0	2,754.9	3,059.5	2,544.4	100.0	100.0	100.0	100.0	100.0	100.0
CHINA	1,615.9	1,675.6	1,800.8	1,993.2	2,386.6	2,046.0	59.1	65.0	67.9	72.4	78.0	80.4
KOREA	444.2	309.8	356.5	344.0	290.2	173.1	16.2	12.0	13.4	12.5	9.5	6.8
ITALY	156.1	135.3	113.0	85.8	71.0	73.4	5.7	5.2	4.3	3.1	2.3	2.9
VIETNAM	96.0	90.7	79.1	74.2	76.7	64.1	3.5	3.5	3.0	2.7	2.5	2.5
THAILAND	51.0	51.1	54.6	56.5	46.8	44.0	1.9	2.0	2.1	2.1	1.5	1.7
U.S.A.	120.3	104.7	74.1	63.1	56.5	36.8	4.4	4.1	2.8	2.3	1.8	1.4
INDONESIA	42.0	31.8	24.8	26.5	22.4	20.5	1.5	1.2	0.9	1.0	0.7	0.8
FRANCE	33.1	32.7	33.0	22.8	20.2	18.6	1.2	1.3	1.2	0.8	0.7	0.7
TAIWAN	66.0	50.9	36.5	26.4	20.4	14.4	2.4	2.0	1.4	1.0	0.7	0.6
PHILIPPINES	15.4	11.7	6.3	7.0	8.8	7.0	0.6	0.5	0.2	0.3	0.3	0.3
HONGKONG	19.2	15.7	12.4	6.4	7.4	5.6	0.7	0.6	0.5	0.2	0.2	0.2
MALAYSIA	14.4	9.9	11.0	8.9	12.8	5.5	0.5	0.4	0.4	0.3	0.4	0.2
UNITED KINGDOM	10.3	9.7	8.4	6.2	6.2	3.9	0.4	0.4	0.3	0.2	0.2	0.2
MEXICO	3.7	3.0	3.8	4.9	4.7	3.8	0.1	0.1	0.1	0.2	0.2	0.1
PORTUGAL	3.5	2.2	1.9	2.3	2.8	3.4	0.1	0.1	0.1	0.1	0.1	0.1
OTHER	45.1	44.0	37.9	26.8	26.1	24.3	1.6	1.7	1.4	1.0	0.9	1.0

Source: Data from Japan's Ministry of Finance, analysis by USAID MoIT PEG office.

China is the main culprit in this disheartening performance, with massive increases in imports in three of four categories (man-made woven apparel being the exception). China's market share in Japan's apparel imports approaches or exceeds 80 per cent in each category, while Indonesia's share dwindles to 1 per cent or less in three of four categories.

Table 10. Japanese Imports of Man-Made Fiber Woven Apparel 1996-2001 (Million \$US, Market Share Percent)

Country	Million \$US						Percent Market Share					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
WORLD	4782.2	3739.6	2967.7	3463.5	4030.1	3871.8	100.0	100.0	100.0	100.0	100.0	100.0
CHINA	3419.6	2773.2	2260.5	2784.1	3305.1	3220.6	71.5	74.2	76.2	80.4	81.8	83.2
VIETNAM	200.2	182.4	150.6	178.1	255.3	236.1	4.2	4.9	5.1	5.1	6.3	6.1
ITALY	176.0	145.8	113.9	97.3	96.3	89.2	3.7	3.9	3.8	2.8	2.4	2.3
INDONESIA	156.0	123.8	76.7	71.7	76.3	60.2	3.3	3.3	2.6	2.1	1.9	1.6
THAILAND	125.5	100.6	61.7	52.1	51.5	44.8	2.6	2.7	2.1	1.5	1.3	1.2
KOREA	175.7	78.7	82.7	95.3	64.7	42.1	3.7	2.1	2.8	2.8	1.6	1.1
U.S.A.	164.9	70.3	50.0	44.2	42.7	39.2	3.4	1.9	1.7	1.3	1.1	1.0
FRANCE	57.4	48.0	31.9	29.2	28.4	27.5	1.2	1.3	1.1	0.8	0.7	0.7
UNITED KINGDOM	19.2	15.3	13.0	12.2	13.8	13.8	0.4	0.4	0.4	0.4	0.3	0.4
PHILIPPINES	25.1	25.1	14.3	12.5	13.0	10.9	0.5	0.7	0.5	0.4	0.3	0.3
BANGLADESH	12.6	10.8	14.4	9.4	9.4	10.1	0.3	0.3	0.5	0.3	0.2	0.3
N. KOREA	45.7	30.8	12.4	9.8	9.9	9.6	1.0	0.8	0.4	0.3	0.2	0.2
INDIA	19.1	12.3	12.0	8.7	9.3	8.8	0.4	0.3	0.4	0.3	0.2	0.2
TAIWAN	46.8	24.6	12.3	10.3	9.7	7.4	1.0	0.7	0.4	0.3	0.2	0.2
HONG KONG	67.5	46.2	23.5	11.9	11.8	7.0	1.4	1.2	0.8	0.3	0.3	0.2
OTHER	70.7	51.7	37.9	36.8	40.8	43.8	1.5	1.4	1.3	1.1	1.0	1.1

Source: Data from Japan's Ministry of Finance, analysis by USAID MoIT PEG office.

Only in man-made woven fabric apparel does Indonesia hold on to 2 per cent of the market for imports in 2001 and, unfortunately, this is a segment of industry for which imports have declined in Japan over this period.

Table 11. Japanese Imports of Cotton Woven Apparel 1996-2001 (Million \$US, Market Share Percent)

Country	Million \$US						Percent Market Share					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
WORLD	2,873.3	2,537.5	2,299.6	2,838.5	3,617.5	3,723.3	100.0	100.0	100.0	100.0	100.0	100.0
CHINA	1,985.3	1,766.8	1,628.0	2,119.1	2,851.3	3,039.7	69.1	69.6	70.8	74.7	78.8	81.6
ITALY	158.8	127.8	107.8	119.3	119.1	126.1	5.5	5.0	4.7	4.2	3.3	3.4
VIETNAM	63.2	73.4	63.7	55.3	93.3	74.6	2.2	2.9	2.8	1.9	2.6	2.0
U.S.A.	116.2	103.8	82.3	94.6	105.6	72.2	4.0	4.1	3.6	3.3	2.9	1.9
INDIA	77.4	53.8	54.4	58.4	79.4	71.5	2.7	2.1	2.4	2.1	2.2	1.9
FRANCE	49.5	43.5	47.2	51.2	47.6	46.7	1.7	1.7	2.1	1.8	1.3	1.3
INDONESIA	72.4	66.9	46.4	39.2	40.5	46.3	2.5	2.6	2.0	1.4	1.1	1.2
THAILAND	82.4	66.1	50.5	49.9	50.8	41.8	2.9	2.6	2.2	1.8	1.4	1.1
KOREA	44.7	27.3	31.2	49.3	36.3	29.3	1.6	1.1	1.4	1.7	1.0	0.8
SPAIN	2.0	2.3	10.9	33.7	28.7	27.1	0.1	0.1	0.5	1.2	0.8	0.7
PHILIPPINES	26.9	36.4	33.9	37.9	30.9	25.3	0.9	1.4	1.5	1.3	0.9	0.7
UNITED KINGDOM	33.5	23.6	18.7	16.8	14.1	14.6	1.2	0.9	0.8	0.6	0.4	0.4
HONG KONG	54.0	46.8	27.2	18.9	22.1	14.1	1.9	1.8	1.2	0.7	0.6	0.4
GERMANY	10.0	8.8	8.7	9.4	8.2	8.6	0.3	0.3	0.4	0.3	0.2	0.2
MALAYSIA	18.4	15.0	12.4	11.8	10.9	8.3	0.6	0.6	0.5	0.4	0.3	0.2
OTHER	78.5	75.2	76.3	73.8	78.6	78.1	2.7	3.0	3.3	2.6	2.2	2.1

Source: Data from Japan's Ministry of Finance, analysis by USAID MoIT PEG office.

What has happened in Japan's market that has led to such a disappointing performance in comparison with the experience in the US market? It is clear that Indonesia is not alone among Asian producers losing out to China in Japan's apparel market.

Table 12. Japanese Imports of Other Woven Apparel 1996-2001 (Million \$US, Market Share Percent)

Country	Million\$US						Percent Market Share					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
WORLD	3,258.0	2,818.5	2,361.2	2,442.8	2,767.7	2,677.1	100.0	100.0	100.0	100.0	100.0	100.0
CHINA	1,692.0	1,557.9	1,285.4	1,526.6	1,870.9	1,834.4	51.9	55.3	54.4	62.5	67.6	68.5
ITALY	729.2	563.5	493.1	417.9	370.4	378.0	22.4	20.0	20.9	17.1	13.4	14.1
VIETNAM	68.6	72.6	78.5	83.8	104.8	102.1	2.1	2.6	3.3	3.4	3.8	3.8
FRANCE	157.6	145.0	127.3	96.7	82.1	88.5	4.8	5.1	5.4	4.0	3.0	3.3
N. KOREA	54.6	48.8	41.0	42.0	49.0	42.0	1.7	1.7	1.7	1.7	1.8	1.6
UNITED KINGDOM	81.1	74.5	68.3	40.6	34.5	30.8	2.5	2.6	2.9	1.7	1.2	1.2
PHILIPPINES	40.5	34.1	27.3	27.5	28.6	27.9	1.2	1.2	1.2	1.1	1.0	1.0
U.S.A.	49.2	44.0	34.2	32.8	30.2	22.7	1.5	1.6	1.4	1.3	1.1	0.8
INDONESIA	29.8	24.7	17.1	18.8	16.5	19.2	0.9	0.9	0.7	0.8	0.6	0.7
KOREA	115.9	66.5	56.3	43.6	28.1	18.7	3.6	2.4	2.4	1.8	1.0	0.7
THAILAND	28.0	26.3	14.9	12.6	14.0	14.9	0.9	0.9	0.6	0.5	0.5	0.6
GERMANY	39.4	31.7	25.7	20.0	14.6	13.7	1.2	1.1	1.1	0.8	0.5	0.5
INDIA	13.9	7.5	4.9	7.3	29.5	12.2	0.4	0.3	0.2	0.3	1.1	0.5
SWITZERLAND	17.3	13.9	12.3	10.0	10.2	10.7	0.5	0.5	0.5	0.4	0.4	0.4
HONGG KONG	62.7	37.5	17.7	11.7	10.8	8.1	1.9	1.3	0.7	0.5	0.4	0.3
OTHER	78.3	70.0	57.2	51.0	73.4	53.3	2.4	2.5	2.4	2.1	2.7	2.0

Source: Data from Japan's Ministry of Finance, analysis by USAID MoIT PEG office.

One theory is that Japanese producers have largely relocated production to joint ventures or subsidiaries in China, taking advantage of the open door to foreign investment, political stability and low-cost but highly productive Chinese labor.

Table 13. Japanese Imports of Other Knit Apparel 1996-2001 (Million \$US, Market Share Percent)

Country	Million \$US						Percent Market Share					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
WORLD	1,600.2	1,440.6	1,287.2	1,327.3	1,584.8	1,445.3	100.0	100.0	100.0	100.0	100.0	100.0
CHINA	1,049.1	982.8	876.0	955.2	1,234.6	1,117.0	65.6	68.2	68.1	72.0	77.9	77.3
ITALY	248.0	189.1	190.1	160.2	150.2	145.3	15.5	13.1	14.8	12.1	9.5	10.1
MALAYSIA	23.7	24.8	19.2	23.8	26.9	27.1	1.5	1.7	1.5	1.8	1.7	1.9
KOREA	39.5	25.4	27.4	34.4	27.6	25.1	2.5	1.8	2.1	2.6	1.7	1.7
UNITED KINGDOM	56.8	51.5	40.5	29.6	27.5	25.0	3.5	3.6	3.1	2.2	1.7	1.7
FRANCE	29.0	24.5	28.4	22.1	17.6	17.6	1.8	1.7	2.2	1.7	1.1	1.2
VIETNAM	9.7	9.8	9.9	10.1	14.3	14.9	0.6	0.7	0.8	0.8	0.9	1.0
U.S.A.	23.2	25.1	15.7	15.8	13.6	12.3	1.5	1.7	1.2	1.2	0.9	0.8
HONGG KONG	34.7	30.4	21.7	14.5	14.2	9.8	2.2	2.1	1.7	1.1	0.9	0.7
THAILAND	12.4	11.5	9.1	11.2	9.2	9.0	0.8	0.8	0.7	0.8	0.6	0.6
PHILIPPINES	7.2	6.4	4.1	5.8	5.9	6.0	0.4	0.4	0.3	0.4	0.4	0.4
INDONESIA	4.4	4.2	4.2	5.2	6.8	5.6	0.3	0.3	0.3	0.4	0.4	0.4
TAIWAN	16.5	11.7	7.4	8.3	6.1	3.7	1.0	0.8	0.6	0.6	0.4	0.3
GERMANY	7.6	7.2	4.6	5.7	4.9	3.1	0.5	0.5	0.4	0.4	0.3	0.2
MONGOLIA	2.7	1.4	1.9	2.6	3.4	3.0	0.2	0.1	0.1	0.2	0.2	0.2
OTHER	36.0	34.8	27.0	22.7	22.0	20.8	2.2	2.4	2.1	1.7	1.4	1.4

Source: Data from Japan's Ministry of Finance, analysis by USAID MoIT PEG office.

Whether or not ASEAN, including Indonesia, can attract investment under the AFTA into the TTP industry will be an important consideration in future competitiveness. Clearly, however, Indonesian and the other ASEAN countries will have to re-think their strategy if they wish to maintain a foothold in the Japanese market.

China in the WTO: Increased Competition

China's recent accession to the World Trade Organization (WTO) on January 1st, 2002 is likely to give rise to intensive competition for the export-oriented TTP industry in Indonesia, particularly in the US market where quota constraints have hitherto been tightly maintained against Chinese products. Is it possible that what China has been able to do in Japan might be repeated in Indonesia's other two main markets: the United States and the European Union (EU)? We will examine recent US import data for the first quarter of 2002 in order to evaluate the impact of China once it begins to enjoy the liberalization of import quotas associated with the Uruguay Round Agreement.²²

US import data through the first three months of 2002 in both volume and value provide a very preliminary glimpse of what may in store with China's improved market access. In value terms overall US imports of apparel have fallen by 12 per cent in the first quarter of 2002 compared with the same period in 2001 and this may reflect the lingering impact of the US recession on clothing demand (**table 14**).

Table 14. US Imports of Apparel, Major Supplying Countries and Regions, 2000, 2001 and YTD 2002 (Million \$US)

Country/Region	Calendar Year		Year to Date First Quarter					
			Value (Million \$US, current prices)			Market Share		
	2000	2001	2001	2002	Percent Growth	2001	2002	Percent Growth
WORLD	57,231.7	56,460.5	14,071.9	12,473.4	-11.4	100.0	100.0	0.0
MEXICO	8,412.6	7,811.2	2,014.8	1,656.6	-17.8	14.3	13.3	-7.2
CHINA P	4,499.0	4,602.3	1,012.0	1,014.5	0.2	7.2	8.1	13.1
HONG KONG	4,486.1	4,211.4	925.4	843.2	-8.9	6.6	6.8	2.8
HONDURA	2,323.1	2,343.6	564.0	515.2	-8.6	4.0	4.1	3.1
DOM REP	2,425.4	2,251.6	526.6	434.2	-17.5	3.7	3.5	-7.0
INDONESIA	2,054.8	2,214.6	582.6	495.5	-14.9	4.1	4.0	-4.0
KOR REP	2,254.1	2,182.0	482.7	433.4	-10.2	3.4	3.5	1.3
ENGLAND	2,115.9	2,101.2	562.7	483.9	-14.0	4.0	3.9	-3.0
PHIL R	1,894.7	1,891.1	499.0	418.6	-16.1	3.5	3.4	-5.4
THAILAND	1,820.3	1,817.5	438.7	385.7	-12.1	3.1	3.1	-0.8
CHINA T	2,053.8	1,811.4	392.4	329.7	-16.0	2.8	2.6	-6.2
INDIA	1,785.8	1,717.1	528.5	493.9	-6.5	3.8	4.0	5.4
SALVADOR	1,583.4	1,611.7	365.0	381.7	4.6	2.6	3.1	18.0
GUATEMALA	1,486.9	1,604.1	438.8	388.5	-11.5	3.1	3.1	-0.1
CANADA	1,746.8	1,684.9	430.0	397.9	-7.5	3.1	3.2	4.4
SRI LANKA	1,471.8	1,504.8	405.3	382.9	-5.5	2.9	3.1	6.6
ITALY	1,399.8	1,392.9	378.9	320.7	-15.4	2.7	2.6	-4.5
MACAU	1,149.2	1,126.9	257.8	253.9	-1.5	1.8	2.0	11.1
TURKEY	1,047.6	1,044.9	315.0	272.1	-13.6	2.2	2.2	-2.6
CAMBODIA	808.4	934.6	255.0	226.1	-11.3	1.8	1.8	0.0
PAKISTAN	920.4	931.5	233.4	171.8	-26.4	1.7	1.4	-16.9
Other	9,127.8	9,463.4	2,392.7	2,107.4	-11.6	16.9	16.9	-0.2
ASEAN	831.1	753.6	224.3	178.0	-20.7	1.6	1.4	-10.5
ASEAN	8,355.0	8,593.2	2,233.0	1,906.6	-14.6	15.9	15.3	-3.7
C,H,K,T	13,312.9	12,807.0	2,812.6	2,620.8	-6.8	20.0	21.0	5.1
CBI	9,541.2	9,375.3	2,253.7	2,064.8	-8.4	16.0	16.6	3.4
EC12	2,034.3	2,049.9	538.0	457.5	-15.0	3.8	3.7	-4.1
EU15	2,057.7	2,070.9	542.9	461.5	-15.0	3.9	3.7	-4.1
H,K,T	8,813.9	8,204.7	1,800.5	1,606.3	-10.8	12.8	12.9	0.6
OECD	7,431.9	7,226.5	1,828.0	1,617.3	-11.5	13.0	13.0	-0.2
SUB-SAH	748.4	950.9	206.0	258.2	25.4	1.5	2.1	41.4

Source: US Department of Commerce - OTEXA - Major Shippers Report.

²² Prior to this year, China was constrained by very small quota increases, particularly in the US market. With WTO membership, China must be treated like all other contracting parties and will gain full benefit from the integration of TTP into the WTO.

However, imports from Indonesia fell by nearly 15 per cent while those from China were virtually unchanged in value terms. Essentially, the drop in current dollar values reflects lower prices more than reduced volume of shipments. To see this more clearly volume data (in units of square meter equivalents) reported by major shippers are drawn upon. In volume terms, US TTP imports from China have surged, with growth of over 47 per cent in the first quarter of 2002 compared with the same period in 2001 (table 15). The volume of MFA apparel imports from China was up 15 per cent in the first quarter and for textile items was up a huge 74 per cent.

Table 15. US Imports of Apparel from China, by US Quota Categories 2000, 2001 and YTD 2002 (Square Meter Equivalents)

Control level	Quota Category\Description	Calendar Year		Year to Date First Quarter		Percent Change Q1 2001 - Q2 2002	2002 Market Share	
		2000	2001	2001	2002			
Aggregations:								
N/A	0	Total MFA	2,217,9	2,210,7	487,7	717,9	47,2	7,4
N/A	1	Apparel MFA	929,2	976,0	218,7	251,1	14,8	6,4
N/A	2	Non-Apparel MFA	1,288,7	1,234,7	269,0	466,8	73,5	8,4
N/A	11	Yarns	27,6	21,6	6,0	5,7	-5,7	0,7
N/A	12	Fabrics	405,3	331,1	77,6	135,8	75,0	5,4
N/A	14	Made Ups / Misc	855,8	882,0	185,4	325,3	75,5	14,7
N/A	30	Cotton Products	947,0	943,6	229,9	338,3	47,1	7,1
N/A	31	Cotton Apparel	312,8	342,8	91,1	113,2	24,3	4,1
N/A	32	Cot Non-Apparel	634,2	600,8	138,9	225,2	62,1	11,3
N/A	60	MMF Products	758,1	766,1	150,3	265,0	76,3	5,2
N/A	61	MMF Apparel	434,1	453,4	88,5	84,2	-4,9	7,0
N/A	62	MMF Non-Apparel	324,0	312,6	61,8	180,8	192,6	4,1
N/A	80	S and V Product	489,4	474,2	104,7	111,4	6,4	62,3
N/A	81	S and V Apparel	167,0	161,2	38,1	52,6	38,2	48,7
N/A	82	S and V Non-App	322,4	313,1	66,6	58,7	-11,8	74,3
G	369	Oth. Cot. Manuf	260,8	269,9	60,8	111,0	82,6	15,3
O	670	Flat Goods, etc	118,7	105,7	20,8	58,9	183,5	20,5
O	669	Other MMF Manuf	39,0	40,8	7,5	28,9	286,1	3,8
G	239	Baby Garm / Acc	22,1	20,4	3,4	13,7	306,0	4,9
O	650	Dress Gown,Robe	5,6	5,1	0,6	1,7	208,2	5,7
O	350	Dress. Gown etc	5,5	9,4	2,4	6,3	156,8	7,4
O	649	Bras/Ot Bod Sup	3,7	4,3	0,6	3,1	408,1	5,5

Source: US Department of Commerce - OTEXA - Major Shippers Report.

Note: SL is a specific limit on a category as opposed to G which is a general limit on multiple categories. In 2001, no general limits were constraining on China.

O denotes a category that has been fully integrated into the WTO (quota has been fully removed).

Additional categories may have been partially liberalized/integrated, leaving an indication that a SL applies, but the limit applies to a reduced number of products.

Very large volume increases have taken place in markets of direct export interest to Indonesia: imports from China of man-made fiber braziers, for example, rose by over 400 per cent in volume in the first quarter of 2002 compared with the same period in 2001.

Overall import volumes from various suppliers of the US market are compared for the first quarter of 2002 (**table 16**). While import volume of apparel from all sources was down by about 2.7 per cent in the first quarter of 2002, import volume of all types of apparel from China rose sharply by 14.8 per cent and is likely to rise further due to the seasonal pattern of shipments of

Chinese apparel products. In contrast to China, the volume of US MFA apparel imports from Indonesia in the first quarter of 2002 was down by 7.7 per cent.

Table 16. US Imports of Apparel, Major Supplying Countries and Regions, 2000, 2001 and YTD 2002 (Square Meter Equivalents)

Country/Region	Calendar Year		Year to Date First Quarter			Market Share		
	2000	2001	Volume (SME)		Percent Growth	2001		Percent Growth
			2001	2002		2001	2002	
WORLD	16,035.3	16,103.5	4,035.8	3,796.1	-5.9	100.0	100.0	100.0
MEXICO	2,526.8	2,290.1	602.6	506.6	-15.9	14.9	13.3	-10.6
CHINA P	929.2	976.0	218.7	251.1	14.8	5.4	6.6	22.0
HONDURA	1,028.1	1,020.7	249.4	220.5	-11.6	6.2	5.8	-6.0
BANGLADESH	966.6	965.9	268.4	243.3	-9.3	6.6	6.4	-3.6
HONG KONG	916.3	916.9	204.1	182.8	-10.5	5.1	4.8	-4.8
DOM REP	836.6	753.0	169.0	156.1	-7.7	4.2	4.1	-1.8
SALVADOR	719.2	723.8	169.9	180.3	6.1	4.2	4.7	12.8
KOR REP	587.2	632.0	125.8	124.2	-1.3	3.1	3.3	4.9
CHINA T	670.7	614.1	121.9	118.4	-2.8	3.0	3.1	3.3
INDONESIA	522.0	593.7	157.6	145.5	-7.7	3.9	3.8	-1.8
PHIL R	529.9	553.3	149.4	130.5	-12.7	3.7	3.4	-7.2
THAILAND	469.7	452.6	110.9	111.9	0.9	2.7	2.9	7.3
INDIA	399.2	402.8	126.0	135.3	7.4	3.1	3.6	14.1
SRI LANKA	408.6	403.4	109.3	106.9	-2.3	2.7	2.8	3.9
GUATEMALA	359.8	388.1	108.7	97.0	-10.8	2.7	2.6	-5.2
CAMBODIA	253.7	358.6	93.9	97.5	3.9	2.3	2.6	10.4
COSTA RICA	350.4	350.0	75.4	75.5	0.3	1.9	2.0	6.6
PAKISTAN	330.2	347.0	86.7	79.2	-8.7	2.1	2.1	-2.9
TURKEY	297.7	306.7	95.3	88.4	-7.3	2.4	2.3	-1.4
CANADA	300.1	281.2	73.0	69.9	-4.2	1.8	1.8	1.9
Other	2,585.0	2,725.8	706.8	663.3	-6.2	17.5	17.5	-0.2
CBI	3,650.9	3,570.1	856.5	804.1	-6.1	21.2	21.2	-0.2
C,H,K,T	3,103.4	3,139.0	670.5	676.5	0.9	16.6	17.8	7.3
ASEAN	2,280.2	2,451.1	643.9	607.5	-5.7	16.0	16.0	0.3
HK,K,T	2,174.2	2,163.0	451.8	425.4	-5.9	11.2	11.2	0.1
OECD	1,407.3	1,435.3	346.5	323.5	-6.6	8.6	8.5	-0.7
SUB-SAH	164.2	218.4	52.0	67.3	29.5	1.3	1.8	37.7
EU15	182.9	167.4	44.0	35.0	-20.4	1.1	0.9	-15.4
EC12	180.3	165.0	43.4	34.5	-20.4	1.1	0.9	-15.4
ANDEAN	159.2	141.6	42.9	36.9	-14.0	1.1	1.0	-8.6

Source: US Department of Commerce - OTEXA - Major Shippers Report.

China Safeguards

China has agreed to two strong provisions to address U.S. producers' concerns regarding import surges of textiles and apparel. The first provision is textile specific and permits restraints on imports that are "due to market disruption, threatening to impede the orderly development of trade in these textile and apparel products."²³ The textile specific safeguard covers all textile and apparel products under the WTO Agreement on Textiles and Clothing (ATC) as of January 1995. The textile specific safeguard will provide one year of protection and will be available through 2008 (three years). China will not have a right to retaliate against a restraint.

Of equal importance to the US textile and apparel industry will be the product specific safeguard that may be applied against any surge in imports from China—including textiles and apparel. This safeguard may be used to address rapidly increasing imports from China that "cause" or "threaten to cause" market disruptions on a product specific basis. Protection under

²³ www.uschina.org/public/wto/factsheets/textilesspec.html.

the product specific safeguard will be provided for three years with the possibility of a two-year extension. Producers will have recourse to the product specific safeguard for 12 years after 2005.

Preferential Trade Agreements

China is not the only problem facing Indonesian TTP in the US market. As can be seen from **table 16** and **table 17**, the value and volume of shipments from AGOA countries (sub-Saharan Africa) and from the CBI countries under preferential trade is rapidly growing. In contrast to the overall contraction of imports in value terms, imports from AGOA and the CBI countries, show positive growth in the first quarter of 2002 (**table 16**). In volume terms, a number of African countries have growth rates of over 50 per cent in the US market in the first quarter of 2002 (**table 17**). These increases are for the most part probably caused by the US use of trade preferences and not by changes in comparative advantage. These issues are examined in the following section.

Preferential trade agreements (PTAs) cover an increasing share of the total volume of world trade.²⁴ This is certainly the case in the US apparel market, where in 1995 an estimated 15 per cent of apparel imports came in under various preferential programs. Yet in 2001, fully 21.1 per cent of apparel imports came in under reciprocal preferential trade agreements such as NAFTA. An additional 16.7 per cent of US apparel imports entered the market under the GSP and the HTS 9802 production sharing program, which essentially confer duty free status on the eligible imports. Indonesia accounted for only one-tenth of one per cent of production sharing imports in 2001 and makes scant use of the GSP program (less than one per cent of US apparel imports from Indonesia are under GSP). Hence, Indonesia is almost completely outside the preferential arrangements in the US market and is similarly excluded from the expanding preferential trading networks of the 15-member European Union.

²⁴ The World Trade Organization estimated that 42 per cent of world trade volume is on a preferential basis (1993-1997) and it is likely that the share is now close to 50 per cent. See the WTO homepage for further analysis: www.wto.org/

There is presently a rising tide of preferential trading arrangements around the globe, including East Asia. Japan, Korea, Singapore, Thailand, Hong Kong, Australia and New Zealand are actively negotiating or have concluded free trade agreements among themselves or with partners across the Pacific and Indian Oceans. Singapore is also negotiating free trade agreements with both the EU and the EFTA in Europe. Indonesia is not party to any of these agreements with the exception of the Singapore-US FTA where electronic products produced in the Batam EPZ may be eligible for US concessions. In any case, the concessions will not apply to TTP.

											Market Share									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	Average Duty Paid	1993	1994	1995	1996	1997	1998	1999	2000	2001	
WORLD	6588	9283	10284	10958	12043	13683	14426	16372	15360	1586	10.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
NAFTA	604	780	1184	1952	2086	2715	3115	3674	3284	6	0.2	7.0	8.4	11.5	14.7	17.3	20.0	21.6	22.9	
CBI	1404	1584	1840	1816	2161	2383	2358	2297	2135	127	5.8	16.3	17.2	17.9	17.2	17.9	16.9	15.7	14.3	
ASEAN	1382	1036	1080	945	981	1163	1435	1637	1584	228	15.2	12.4	11.2	10.5	8.9	8.1	8.5	9.8	10.2	
HONGKONG	1303	1385	1435	1440	1367	1586	1456	1429	1328	211	15.9	15.2	15.1	14.0	13.6	11.3	11.1	10.1	8.9	
ENGLISH	389	446	509	524	674	795	785	921	884	135	15.2	4.5	4.8	5.0	5.8	5.6	5.4	5.7	5.8	
CHINA-P	656	615	705	748	934	853	808	801	841	111	13.3	7.6	6.6	6.9	7.1	7.8	6.3	5.6	5.8	
INDIA	511	582	556	591	639	786	700	817	734	187	14.6	5.9	6.3	5.4	5.6	5.3	5.2	4.9	5.1	
INDONESIA	336	384	381	467	582	589	594	802	649	99	15.2	3.9	3.3	3.7	4.6	4.8	4.3	4.1	3.7	
SRILANKA	374	346	396	395	444	477	491	494	481	76	15.4	4.3	3.7	3.9	3.7	3.7	3.5	3.4	3.1	
AGOA	171	229	246	212	250	315	352	407	474	46	9.7	2.8	2.5	2.4	2.8	2.1	2.3	2.4	2.5	
TURKEY	147	174	222	155	171	211	258	378	370	52	13.9	1.7	1.9	2.2	1.5	1.4	1.5	1.8	2.3	
MACAU	109	144	163	165	183	188	212	238	232	35	15.8	1.3	1.5	1.6	1.6	1.5	1.5	1.5	1.5	
PAKISTN	108	128	124	128	166	172	180	236	222	29	13.8	1.3	1.4	1.2	1.2	1.4	1.3	1.3	1.4	
CHINA-T	319	382	258	261	259	310	286	275	221	37	16.8	3.7	3.3	2.5	2.5	2.2	2.3	2.0	1.7	
ITALY	76	77	104	145	148	156	183	201	219	34	15.7	0.9	0.8	1.0	1.4	1.2	1.1	1.3	1.2	
EGYPT	67	87	114	112	118	142	168	218	212	35	16.7	0.8	1.1	1.1	1.1	1.0	1.0	1.2	1.4	
ANDEAN	133	140	122	115	102	115	137	166	163	23	14.8	1.5	1.5	1.2	1.1	0.8	0.8	0.9	1.0	
Other	818	873	845	765	780	918	884	1238	1387	175	12.6	9.5	8.4	8.2	7.2	6.5	6.8	6.8	8.1	

US tariff preferences provide a significant margin of preference for members as opposed to non-members.²⁵ Effective duties paid on US apparel imports ranged from a low average of 0.5 per cent for members of NAFTA (Mexico and Canada) to a high of 18.2 per cent for Indonesia. Effective duties paid in the US market for cotton woven apparel averaged 10.2 per cent for the world but were as low as 0.2 per cent for NAFTA members but were as high as 15-17 per cent for developing countries outside the preferential agreements, including for Indonesia (**table 17**). For man-made fiber woven apparel, global average duties paid on US imports were 12.5 per cent

²⁵ In the case of Mexico, under the terms of the NAFTA agreement, the US eliminated quota restrictions on imports of TTP from Mexico but imposed highly restrictive "yarn-forward" rules of origin in exchange (Cameron and Tomlin 2000).

in 2001 but were just 0.9 per cent for NAFTA but over 20 per cent for Indonesia (even higher than duties on Chinese imports—see **table 18**).

Table 18. US Imports of Man-Made Fiber Woven Apparel 1993-2001 (Million \$US, Average Duty Paid as a Percent of Value)

											Average Duty Paid	Market Share									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	1993		1994	1995	1996	1997	1998	1999	2000	2001		
_WORLD	5 508	6 089	6 216	6 608	7 688	8 233	8 352	10 072	9 762	12.5	108.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	108.0		
_CBI	798	880	1 000	1 056	1 317	1 370	1 384	1 531	1 539	8.2	14.3	14.6	16.1	16.0	16.7	16.6	16.6	15.2	15.8		
CHINA/P	836	947	1 001	1 159	1 380	1 228	1 321	1 488	1 485	17.5	15.2	15.8	16.1	17.6	17.5	14.8	15.8	14.6	14.4		
_NAFTA	293	387	510	632	673	1 061	1 249	1 396	1 292	8.9	5.3	6.4	8.2	9.6	11.1	12.9	15.0	13.9	13.2		
_ASEAN	692	714	719	766	859	885	899	1 120	1 188	16.6	12.6	11.9	11.6	11.6	10.9	10.8	10.8	11.1	12.2		
INDONESIA	312	331	359	378	404	464	523	709	744	28.4	5.7	5.5	5.8	5.6	5.2	5.6	6.3	7.8	7.6		
KOR.REP	718	682	612	527	585	616	668	797	671	28.8	13.0	11.5	9.9	8.0	7.2	7.5	8.0	7.9	6.9		
SRI LKA	213	244	260	304	388	432	366	464	477	16.6	3.9	4.1	4.2	4.6	5.1	5.2	4.4	4.6	4.9		
HQ.KING	423	463	442	382	367	418	381	490	422	18.9	7.7	7.7	7.1	5.8	4.7	5.0	4.6	4.9	4.3		
BANGLDGH	128	160	167	193	263	276	238	372	388	15.3	2.3	2.7	2.7	2.9	3.3	3.3	2.9	3.7	4.0		
INDIA	168	280	193	189	218	238	240	310	291	18.9	2.9	3.3	2.9	2.9	2.8	2.9	2.9	3.1	3.0		
CHINA/T	458	452	365	378	407	379	288	362	289	15.5	8.2	7.5	5.9	5.7	5.3	4.6	3.4	3.6	3.0		
MACAU	98	180	129	123	175	166	129	186	185	15.8	1.8	1.7	2.1	1.9	2.2	2.0	1.6	1.8	1.9		
ITALY	68	73	80	108	134	121	116	122	185	19.1	1.1	1.2	1.3	1.7	1.7	1.5	1.4	1.2	1.1		
ARABEM	24	38	33	34	57	74	61	75	73	8.0	0.4	0.6	0.5	0.5	0.7	0.9	0.7	0.7	0.7		
RUSSIA	5	9	15	17	20	34	36	53	62	16.1	0.1	0.1	0.2	0.3	0.2	0.4	0.4	0.5	0.6		
Other	305	317	341	362	429	487	461	617	630	16.7	5.5	5.3	5.5	5.5	5.4	5.9	5.4	6.1	6.5		

Preferences extended to Pakistan in TTP in the EU and the US markets resulting from the security cooperation in the fight against terrorism could also result in the erosion of the market share of Indonesian products in these large markets. Data were compiled on the top 45 US imports of textiles and apparel from Indonesia by US MFA categories (ranked by value of imports in 2001).²⁶ Pakistan competes with Indonesia in 34 of these 45 product groups. Pakistan filled up 90 per cent or more of its quota in 7 of these categories. Hence, any relaxation of US quotas on a preferential basis will likely lead to increased Pakistani market shares in these product categories.

China is a major competitor in 44 of the top 45 Indonesian MFA categories in the US market. China had filled its quotas (90 per cent or greater) in 20 of these categories. Hence, with better market access under the WTO liberalization for China, and with additional concessions to Pakistan, Indonesian producers will have to compete fiercely to maintain their share of the US market. The picture is likely to be similar in the European Union for Indonesian exporters.

Within the new regional and cross-regional free trade agreements, some will have potentially large impacts on TTP exports of Indonesia. Trade diversion effects are likely to be important where large markets for Indonesian exports are subject to penetration on a preferential

²⁶ These data tables are available from the authors upon request.

basis by partners with substantial capacity in TTP. For example, an FTA between Japan and Korea could severely disrupt Indonesian exports of textile yarn and fabric to Japan and Korea, both of which have substantial capacities in these sectors. Such trade diversion effects in TTP are less likely to take place in the New Zealand-Singapore FTA as neither country possesses much TTP capacity.

International Market Access with end of MFA at end of 2004: Is the industry preparing adequately for open competition?

Implementation of MFA liberalization under the UR Agreement has two components: 1) quota relaxation and liberalization under the growth on growth schedule and 2) integration or the complete phasing out of quotas so that only tariffs restrict imports of TTP. The liberalization of quotas takes place over a ten-year period ending on December 31, 2004, with completion of the four phases of quota liberalization. While a good deal of the liberalization is “back loaded” (around 48%) to the final phase, as of year end 2001 already 57 per cent of US imports of TTP from Indonesia were unconstrained by quotas (\$1.5 billion) while 43 per cent of US imports of TTP from Indonesia (table 19) were quota constrained (\$1.1 billion).²⁷

Table 19. US Textile and Textile Product Imports from Indonesia and US Quotas, 2001 (Million \$)

	US Imports of Textiles and Textile Products from Indonesia				
	Total Million \$	Constrained by Quota 2001		Unconstrained by Quota 2001	
		Million \$	Percent	Million \$	Percent
Apparel	2.212,7	1.082,4	48,9%	1.130,3	51,1%
Made Ups	209,6	0,0	0,0%	209,6	100,0%
Fabric	92,4	4,2	4,5%	88,3	95,5%
Yarn	31,3	0,0	0,0%	31,3	100,0%
Total	2.546,1	1.086,6	42,7%	1.459,5	57,3%

Source: Authors' analysis of US Department of Commerce Major Shippers and Performance Reports.

Note: The authors define any quota filled to 90 percent or more as constraining.

Virtually all of the \$1.1 billion in Indonesian exports to the US that are quota constrained will face competition from other quota constrained countries when these quotas are removed.²⁸

²⁷ The authors define a quota as constraining if it was at least 90 percent filled.

²⁸ Quota category 331 – cotton gloves with \$3.9 million of Indonesian exports to the US, category 644 – Women and Girls MMF suits with \$15.5 million of Indonesian exports to the US are the only categories where Indonesia was the only quota constrained shipper.

Moreover, the majority of these quotas will not be removed before January 2005.²⁹ In the interim period 2002 – 2004, Indonesia will enjoy one of the highest quota growth rates amongst the constrained suppliers averaging 11 percent per annum starting in 2002³⁰. The Big Three suppliers (Korea, Taiwan, Hong Kong and China) have on average the lowest quota growth rates, averaging less than 2 percent per annum in the interim period. In cotton products, traditional suppliers such as Turkey, India, Pakistan and Bangladesh enjoy varying levels of quota growth and will be the principal source of competition in these cotton categories. With numerous suppliers initiating or having initiated revitalization programs aimed at enhancing their competitive positions in preparation for 2005, the unconstrained suppliers could rapidly increase shipments up to their quota limits thereby putting further pressure on prices and Indonesia's market share in the interim period (see section VI of this paper for a review of revitalization programs underway in the region). This could be the greatest threat to Indonesia's market share in the interim period.³¹

In contrast to Indonesia's quota constrained exports, nearly 75 percent of Indonesia's \$1.5 billion in non-quota constrained products will face increasing competition starting in 2002 as quotas are loosened or eliminated on constrained competitors such as Bangladesh, China, India, South Korea and Pakistan (**table 20**).

Table 20. US Imports of Textile and Textile Products from Indonesia Unconstrained by US Quotas 2001 (Million \$)

	Unconstrained US Imports of Textiles and Textile Products from Indonesia				
	Total Million \$	Other Foreign Suppliers Constrained by quota		Other Foreign Suppliers Unconstrained by Quota	
		Million \$	Percent	Million \$	Percent
Apparel	1,130.3	871.5	77.1%	258.8	22.9%
Made Ups	209.6	208.4	99.4%	1.2	0.6%
Fabric	88.3	1.6	1.8%	86.7	98.2%
Yarn	31.3	3.2	10.2%	28.2	89.8%
Total	1,459.5	1,084.6	74.3%	374.9	25.7%

Source: Authors' analysis of US Department of Commerce Major Shippers and Performance Reports.

Note: The authors define any quota filled to 90 percent or more as constraining.

²⁹ Quota categories 350\650 cotton and MMF robes -- \$12.9 million and category 331 cotton gloves -- \$3.9 million will be at least partially integrated in 2002.

³⁰ Preferential suppliers to the US market generally have the highest average growth rates in their quotas, but these are for special quotas that have restrictive rules of origin requiring the use of US cut and formed fabrics.

It is likely that Indonesia will lose sales and market share to these competitors as they enjoy more liberal market access. We estimate that 38 per cent of the \$1.5 billion in US imports from Indonesia that enjoy unconstrained access will be subject to intense competition from the quota-constrained producers in January 2002, since quotas will be removed in accordance with the integration schedule. Table 21 illustrates one such apparel product—babies garments.³²

Table 21. US Imports of Babies Garments, 2001 - 2002 (Million \$US)

	Calendar Year		Value (Million \$US)		January - April		
	2000	2001	2001	2002	2001-2002 Growth	Percent	
						Market Share	
						2001	2002
WORLD	1782,9	1893,2	569,7	503,1	-11,7	100,0	100,0
THAILND	276,5	294,5	95,5	82,3	-13,7	16,8	16,4
HG KONG	176,7	206,1	62,9	30,6	-51,4	11,0	6,1
CHINA P	124,2	120,7	28,3	65,9	133,0	5,0	13,1
PHIL R	146,8	167,9	55,3	40,7	-26,4	9,7	8,1
INDNSIA	103,3	136,2	39,9	29,4	-26,3	7,0	5,8
BNGLD SH	75,1	96,8	26,6	20,5	-23,0	4,7	4,1
MEXICO	92,6	92,6	27,9	21,3	-23,8	4,9	4,2
Other	787,8	778,3	233,4	212,5	-8,9	41,0	42,2
_ANDEAN	37,9	28,5	10,4	9,3	-10,6	1,8	1,9
_ASEAN	624,0	727,9	224,9	193,3	-14,1	39,5	38,4
_C,H,K,T	465,0	452,5	122,8	122,2	-0,5	21,6	24,3
_CBI	218,1	189,1	59,0	43,7	-26,0	10,4	8,7
_EC12	15,0	16,6	6,7	5,4	-19,7	1,2	1,1
_EU15	16,3	17,6	7,1	5,7	-19,2	1,2	1,1
_HK,K,T	340,7	331,8	94,5	56,3	-40,4	16,6	11,2
_OECD	128,3	114,3	34,6	32,6	-5,8	6,1	6,5
_SUB-SAH	7,8	8,4	3,0	3,7	25,0	0,5	0,7

Note: Category 239 was largely integrated in 1998, however, China did not receive integration before its accession to the WTO in 2002.

The US imported \$136 million in babies' garments from Indonesia in 2001. Quotas were largely removed from quota-constrained suppliers, principally China, in January 2002. In the four month period January-April 2002, Indonesia's market share has been reduced from 7.0 percent to 5.8 percent in value terms. The same conclusions were found in quantity terms. Indonesia's exports of made-up products will also experience increased competition in January 2002. Luggage is one of Indonesia's largest exports to the US market. Quotas were removed on this product in January 2002. **Table 22** illustrates that while Indonesia's shipments in value terms decreased dramatically, it held its market share.

³¹ China has been rapidly building capacity in man-made fibers. India completed a revitalization program in 2001 and initiated a second round of measures aimed at further enhancing its competitive position. Malaysia is relocating its apparel production to low cost labor countries such as Vietnam and the AGOA nations.

³² Other apparel products include categories: 659 – Other Man-made fibers, 847 – Silk Trousers, 350 – Cotton Robes, 835 – Silk Coats, 650 Man-made fiber Robes, 331 – Cotton Gloves, 649 – Man-made fiber Brassieres, and 369 – Other Cotton.

Table 22. US Imports of Luggage, 2001 - 2002 (Million \$US)

	Calendar Year		January - April				
			Value (Million \$US)		2001-2002 Growth	Percent	
	2000	2001	2001	2002		Market Share 2001	2002
WORLD	1736,601	1614,489	539,412	400,226	-25,8	100,0	100,0
CHINA P	457,524	394,113	110,848	163,777	47,7	20,5	40,9
THAILND	285,969	302,418	101,677	51,332	-49,5	18,8	12,8
PHIL R	247,036	234,435	81,527	44,311	-45,6	15,1	11,1
INDNSIA	147,138	165,507	51,914	39,28	-24,3	9,6	9,8
CHINA T	112,864	110,268	35,086	13,18	-62,4	6,5	3,3
SRI LKA	103,418	106,267	40,34	20,862	-48,3	7,5	5,2
ITALY	82,406	69,765	31,203	13,521	-56,7	5,8	3,4
Other	300,2	231,7	86,8	54,0	-37,8	16,1	13,5
_ASEAN	699,109	720,652	241,808	143,62	-40,6	44,8	35,9
_C,H,K,T	661,829	569,732	167,912	190,195	13,3	31,1	47,5
_CBI	24,414	20,182	6,523	3,525	-46,0	1,2	0,9
_EC12	93,31	81,514	36,027	16,72	-53,6	6,7	4,2
_EU15	93,762	81,754	36,045	16,759	-53,5	6,7	4,2
_HK,K,T	204,305	175,619	57,064	26,418	-53,7	10,6	6,6
OECD	190,678	156,537	60,771	30,19	-50,3	11,3	7,5

Source: US Department of Commerce Major Shippers Report.

Note: Category 670 was integrated in 2002. China was the only quota-constrained supplier in 2001.

However, **table 23** illustrates the same analysis in quantity terms results in a decline in Indonesian market share from 9.2 percent to 7.7 percent. Maintenance of Indonesia's market share will require producers to upgrade quality, reduce costs of production and to respond quickly and efficiently to customer demand.

Table 23. US Imports of Luggage, 2001 - 2002 (Metric Tons)

	Calendar Year		January - April				
			Volume (Metric Tons)		2001-2002 Growth	Percent	
	2000	2001	2001	2002		Market Share 2001	2002
WORLD	204.365	199.190	64.870	58.591	-9,7	100,0	100,0
THAILND	46.024	50.687	16.183	8.621	-46,7	24,9	14,7
PHIL R	38.490	36.444	12.313	6.055	-50,8	19,0	10,3
CHINA P	32.068	28.580	7.663	27.625	260,5	11,8	47,1
INDNSIA	16.347	19.470	5.964	4.497	-24,6	9,2	7,7
SRI LKA	20.350	19.034	7.674	4.076	-46,9	11,8	7,0
CHINA T	14.672	16.434	4.932	1.894	-61,6	7,6	3,2
KOR REP	8.703	7.327	1.870	936	-49,9	2,9	1,6
Other	27.712	21.215	8.272	4.888	-40,9	12,8	8,3
_ASEAN	104.465	110.310	35.616	20.649	-42,0	54,9	35,2
_C,H,K,T	5587452	52.528	14.564	30.983	112,7	22,5	52,9
_CBI	4.639	3.183	1.030	775	-24,8	1,6	1,3
_EC12	924	768	309	222	-28,3	0,5	0,4
_EU15	946	777	312	225	-27,8	0,5	0,4
_HK,K,T	23.807	23.948	6.901	3.359	-51,3	10,6	5,7
OECD	9.926	8.333	2.271	1.249	-45,0	3,5	2,1

Source: US Department of Commerce Major Shippers Report.

Note: Category 670 was integrated in 2002. China was the only quota-constrained supplier in 2001.

Quota-Fill Rates

Performance in non-quota markets may provide an indicator of preparedness for the coming end of the MFA. In this context, Indonesia's relatively weak performance in the Japanese

market (discussed above in Section IV), does not bode well for the future. Indonesian producers may need to do more to lock in their shares of the major markets in Europe, North America and East Asia in the coming years. Greater use of production sharing arrangements, attraction of new foreign investment or new partners through mergers and acquisition, and even negotiation of preferential trading arrangements may be necessary steps given the changes in the global and regional markets for TTP.

Imports of TTP-Related Inputs in Production

Recent import data from the Central Statistical Agency have been compiled to examine the impact of the global downturn on the TTP industry in Indonesia (**table 24**). The quarterly import data for 2000 and 2001 reveal the sharp turn of events in the global economy's impact on Indonesia. Imports of raw materials, intermediate goods and machinery for TTP and footwear (also a major user of TTP intermediate products) turn sharply negative in the third quarter of 2001 and fall even more sharply in the fourth quarter of the year compared with the same period in 2000.

Table 24. Textile, Apparel and Footwear Related Imports of Raw Materials, Intermediates and Machinery CIF (Quarterly) Year 2000 and 2001

Items	Year 2000					Year 2001					Growth Rate				
	Quarterly 1	Quarterly 2	Quarterly 3	Quarterly 4	Year 2000	Quarterly 1	Quarterly 2	Quarterly 3	Quarterly 4	Year 2001	Quarterly 1	Quarterly 2	Quarterly 3	Quarterly 4	Year
Raw Materials															
211 HIDES,SKINS(EX.FURS),RAW	3,506,309	3,319,319	3,204,520	2,774,749	12,804,900	2,851,823	1,790,352	788,047	888,604	5,518,826	-41.48%	-46.06%	-75.41%	-67.96%	-56.90%
212 FURSKINS, RAW	2,620	23,940	45,702	2,396	74,711	146	22,490	344,709	89,491	396,919	-94.43%	-6.06%	434.80%	3882.38%	377.73%
231 NATURAL RUBBER, ETC.	7,769,609	3,947,941	2,873,496	3,545,411	18,136,457	2,897,660	1,163,420	1,056,211	1,572,631	6,689,922	-62.69%	-70.53%	-63.24%	-65.84%	-63.17%
232 SYNTHETIC RUBBER, ETC.	20,630,765	27,638,115	40,803,797	45,551,805	134,225,482	33,360,428	32,763,045	27,362,394	21,477,340	114,963,210	-59.67%	17.76%	-31.55%	-52.85%	-14.40%
244 CORK,NATURAL,RAW,WASTE	84,665	68,523	58,169	38,876	251,233	112,402	34,622	26,340	32,629	205,999	32.76%	-60.20%	-64.72%	-16.87%	-18.01%
256 SYNTHETIC FIBRES	44,963,992	42,396,038	62,408,083	67,909,225	237,586,938	71,152,555	70,653,072	46,324,605	44,207,794	232,338,026	-58.24%	67.06%	-43.75%	-34.90%	-2.29%
257 OTHER MAN-MADE FIBRES	5,941,004	3,617,887	10,519,987	11,500,710	31,480,398	7,954,307	8,634,823	4,889,006	5,192,627	26,671,563	33.07%	145.45%	-53.52%	-64.86%	-15.28%
611 LEATHER	35,221,176	28,441,258	56,763,400	67,832,959	188,258,795	46,997,850	45,491,661	35,547,039	30,360,268	157,876,810	32.27%	59.91%	-37.36%	-65.24%	-18.09%
Total Raw Materials	118,328,748	109,445,026	195,877,237	199,159,081	623,882,884	164,867,171	168,963,488	116,259,231	103,821,379	544,851,269	38.61%	46.71%	-48.85%	-47.80%	12.95%
Intermediate Products															
612 MANUFACT. LEATHER ETC. NES	995,610	576,947	4,880,801	1,030,520	6,888,878	454,542	1,149,034	838,235	736,320	3,178,131	-53.00%	98.16%	-79.36%	-39.76%	-52.26%
653 FABRICS,MAN-MADE FIBRES	43,068,195	48,318,299	91,799,919	86,776,174	269,964,576	72,824,590	73,768,905	44,254,223	39,417,238	229,464,546	67.23%	52.74%	-61.79%	-64.58%	-14.98%
655 KNIT CROCHET FABRICS NES	22,104,553	27,641,983	48,770,857	47,171,347	145,688,737	38,162,466	39,937,377	22,571,355	19,571,564	120,242,762	72.65%	44.48%	-63.72%	-68.51%	-17.47%
656 TULLE/LACE,EMBROIDRY,ETC	11,402,848	11,628,133	19,578,307	19,082,368	61,693,556	14,815,598	14,427,969	10,852,148	10,143,240	50,238,955	29.93%	24.16%	-44.57%	-46.84%	-18.55%
651 FOOTWEAR	17,199,061	17,257,462	23,795,730	29,199,630	87,381,889	21,544,859	19,307,597	12,945,323	12,439,058	66,137,837	25.27%	11.24%	-45.80%	-57.34%	-24.31%
Total Intermediate Materials	94,768,254	105,416,824	187,395,756	183,225,942	571,285,776	147,882,845	148,519,472	95,462,294	82,307,438	409,282,211	95.13%	40.88%	-51.34%	-59.88%	-17.81%
Machinery															
724 TEXTILE/LEATHER MACHINES	70,483,572	71,282,395	109,481,531	163,302,198	414,549,696	114,883,720	104,225,552	88,459,436	67,067,348	373,845,857	61.86%	45.22%	-19.19%	-58.93%	-9.62%

Source: Central Statistical Agency and Ministry of Industry and Trade

This is also the case with textile and leather working machinery, indicating investment, after growing strongly in the first half of the year is now falling off dramatically. For the year as a whole, machinery imports are down about 10 per cent and it does not appear that this will turn

around immediately in 2002 in spite of the ensuing recoveries in major markets expected during the course of the year.

Investment in new machinery is critical if Indonesian TTP producers are to begin serious preparedness for the changes in the global trading environment for TTP. New machinery, particularly CAD-CAM machinery is essential for upgrading quality, improving design capability, and meeting the increasing sophisticated demands in the market place.

China's Competitive Edge

China has some formidable competitive abilities in apparel manufacturing with its skilled and productive, yet inexpensive, labor force. China's large domestic market also allows firms in the TTP industry to exploit scale economies. Together with China's ability to attract foreign direct investment, TTP producers are able to gain access to advanced technology and machinery and to upgrade their indigenous capacities. Moreover, as a result of joining the WTO, China is scheduled to reduce tariff protection on imported intermediate inputs and machinery. For example, tariffs on chemicals are to be reduced from 35 per cent to zero, 5.5 or 6.5 per cent. The average duty on imported final products will be reduced from 25 per cent to 11 per cent. These reforms will encourage a more efficient TTP industry. The ensuing flow of Chinese apparel exports will be so large that the World Bank estimates that 44 per cent of global exports of apparel will be from China by 2005. Ianchovichina, Martin and Fukase (2000) use a Compatible General Equilibrium model (CGE) to estimate changes in China's share of world exports. As the Japanese TTP market is already dominated by China and Europe is making many preferential arrangements in Africa, the Middle East, Eastern Europe, South Asia and Latin America, it is likely the US will be the primary destination for China's TTP exports in future. The following four cases illustrate what this might mean for Indonesia.

Tables 21 and 22 include data for two major Indonesian exports—babies garments and luggage (these products comprised \$300 million dollars in Indonesian exports in 2001, and were

major contributors to Indonesia's past growth in apparel exports) and illustrate what might be in store for Indonesia. US imports from China of these products, which recently had quotas removed, have surged by over 100 percent for babies' garments and 260 percent in luggage. China's success has come primarily at the expense of other suppliers. Indonesia's exports of babies garments and luggage declined by approximately 25 percent in both categories in the first three month of 2002 as compared to 2001. Indonesia's experience in other product categories, where quotas were eliminated on Chinese exports, has been similar.³³

Trade policy issues linked to competitiveness and export performance in TTP include the rise in the use of antidumping, countervailing duties, safeguards and rules of origin. The latter are necessary to enforce trade remedies as these are targeted to specific producers in specific countries. Rules of origin must also be used to distinguish between products that are eligible for preferential treatment and those that are not in the context of preferential trading arrangements.

Trade Remedies and the Rise of Antidumping

Trade remedies such as antidumping measures are likely to increase in coming years. Two examples are worth citing. Indonesian exports of manmade fiber blouses and shirts (imports into the US from Indonesia in 2001 were \$164 million) are up in quantity by 67 per cent, but unit prices have fallen by nearly 8 per cent. For manmade fiber sweaters (imports into the US from Indonesia in 2001 were \$62 million) volumes have risen by 135 per cent while unit prices are down by 20 per cent. Rapidly increasing import volumes coupled with stagnant or declining average prices provide an ideal environment for US trade remedies, the most common of which is antidumping. Presently, the United States has 30 antidumping and countervailing duty cases in textiles and apparel, 2 of which involve Indonesian producers. The US textile industry has been under enormous pressure from import competition as quotas are liberalized and eliminated. As was the case in steel, politically powerful textile interests, including companies and unions, are

³³ Other categories include categories 649—man made fiber brassieres and Other 369—Cotton Products.

bringing pressure to bear on Congress. These interests are lobbying heavily for the US negotiators to resist any reform of US trade law in the context of the WTO Doha Round negotiations. Thus, Indonesia should not be surprised if more cases are filed against Indonesian producers in the coming years.

Trade remedies are increasingly being used by developing countries as well. For example, Turkey has applied anti-dumping duties on fabrics made of artificial filament yarns from Korea, Malaysia, Taiwan and China PRC. Korea initiated a case against Pakistan on cotton yarns. Additionally, there has been a rapid increase in the threat of anti-dumping investigations on important textile raw materials such as polyester staple fiber by China PRC, Korea, Japan, India and the EU which could propagate down the production chain since a common method of circumventing anti-dumping duties is to transform the dumped product into higher value added products, such as man-made fiber fabrics and apparel. Even if Indonesia were to avoid being subject to anti-dumping duties, the underlying cause, over supply, and trade diversions caused by anti-dumping measures could have a significant impact on selected Indonesian industry segments.

Globally, between 1987 and 1997, increased antidumping investigations and antidumping measures have been in evidence. WTO data for that period on antidumping globally reveal that East Asian textile producers were among the most intensively investigated industries in East Asia (8.67 per cent of all investigations) and also among the most penalized by antidumping measures (7.34 per cent of all measures against East Asia).³⁴

Conclusions

During the first four months of 2002, the Central Statistical Agency (*Berita Resmi Statistik*, 3 June 2002) reports that the TTP sector has experienced a 12 per cent contraction in exports compared with the first four months of 2001. The decline is much steeper than the overall decline in the non-oil export growth rate of 6.8 per cent during the first four months of 2002. This confirms the concerns with regard to the outlook for TTP exports in 2002. Comparable data

for other countries in the region reveals that growth of apparel exports from producers in Bangladesh, the Philippines and Thailand are contracting (particularly exports to the US), but that India, Vietnam and China are continuing to increase exports of TTP this year. In almost all cases, the countries concerned are moving swiftly to implement new strategies aimed at coping with the competitive challenge from China and the changing international trade rules governing TTP.

India, for example, is in the process of removing all quantitative restrictions on imports and is reducing duties charged on imports of textile working machinery under its Duty Entitlement Passbook Scheme. The central and state governments are working to set up special economic zones (SEZs) modelled upon China's own Shenzhen Special Zone. New Delhi is providing financial support for the establishment of 15 "apparel parks" in association with state governments in major apparel-producing areas such as Ahmedabad, Bangalore, and Chennai. The parks will be equipped with training centers. Large firms are being encouraged to invest in these parks under the "dereservation" policy.

In the Philippines the government, similarly, is working to prepare a "transformation plan" to invigorate the apparel sector and will provide relief from excessive regulation and streamline its system for allocating quotas to clothing exporters. Financial support will be provided for clothing companies seeking to import new machinery.

Vietnam has secured market access in the United States under its bilateral trade treaty. Recently, Taiwan's largest textile group (Formosa Plastics) began developing a large new textile complex that will produce polyester and rayon yarns and will add weaving and finishing plants in anticipation of the rapid growth in demand resulting from an expected surge in exports of apparel, particularly to the US.

Malaysia is seeking to automate domestic production in order to overcome labor scarcities and will relocate labor-intensive segments overseas, particularly in Vietnam, but also to Africa (a move that could position Malaysian-owned firms to gain preferential access to the US and EU

³⁴ See James (2000) for more detailed information on antidumping use against East Asia.

markets under various schemes). Other countries are also moving to counter the shift of TTP trade from the MFA to various preferential schemes by negotiating their own preferential deals with the US and EU. Amongst these are Bangladesh, India, Cambodia, Laos and Nepal. Brazil is positioning itself to increase production of textiles with massive new investments aimed at capturing the expanding import markets for intermediate goods resulting from the global expansion of apparel production and trade.

In light of the rapidly changing international environment with intensified competition from low cost suppliers like China and the increasing tendency towards preferential trade arrangements there will clearly be difficulty on the side of international demand facing Indonesian producers. On the domestic or supply side, the rising costs of domestic production associated with decentralization and increased labor restiveness, threaten to further erode Indonesia's ability to compete internationally in TTP. What can Indonesia do to counter this "double-squeeze" and to position its industry to take full advantage of global trade liberalization that is unfolding in the next two-three years?

Recommendations for Indonesia

External Challenges

1. Indonesia needs to consider actively seeking and obtaining tariff preferences, either through production sharing arrangements (such as Japanese producers have in mainland China) or through preferential trade agreements.
2. Indonesia could adopt a hybrid approach of seeking to attract more investment into the bonded zones or specially designated apparel parks. It would seek to import intermediate products from textile producers in the US, Japan, Korea, Taiwan and Europe in order to secure better market access for apparel exports.
3. Should Indonesia decide to establish facilities such as apparel zones or parks in order to attract greater private and foreign direct investment, efforts should be made to provide an investor friendly environment with reliable and competitive labor, including training

facilities, adequate infrastructure, including power, roads, water supply and land and expedited customs treatment for imported machinery and components and export shipments.

4. In order to face the China Challenge, Indonesia should seek access to the Chinese market for Indonesian textile products, including cotton and man made fiber yarns and fabrics. Indonesian producers should seek to enter into long-term supply contracts with apparel manufactures in China and provide reciprocal access for Chinese apparel products using Indonesian inputs in the Indonesian market (production sharing).
5. Indonesia in the Doha Round WTO negotiations should push for maximum cuts in MFN tariffs on TTP and should offer reciprocal reductions in its own TTP tariffs. This will reduce the effect of discriminatory preferential trading arrangements.
6. Further, in the WTO negotiations, Indonesia should support stricter disciplines over use of contingent forms of protection: antidumping, countervailing duties, safeguards and their enforcement mechanism-rules of origin.

Internal Challenges

1. Indonesia needs to find an appropriate balance between ensuring worker's rights and welfare on the one hand and remaining internationally competitive on the other. The TTP sector cannot continue to sustain nominal wage growth of 30-40 percent per annum. Nor can it absorb the costs associated with the more controversial aspects of rulings such as the severance pay decree. It is important that short run populism does not result in medium term destruction of the industry, particularly as it employs, both directly and indirectly, approximately 5 million people. For this reason it is advisable for the central government to undertake a comprehensive review of recent labor policy measures to determine whether they are truly in the national interest.
2. The present institutional arrangements governing local regulations are failing. In the medium term, Indonesia needs to develop a new national framework, whereby the onus of

reviewing and justifying local regulations is returned to regions. The review process could be based upon key legislative principles set by the central government, and carried out according to established methodologies and procedures developed in other countries, such as the ‘National Competition Policy’ framework that has been so successful in improving the business environment in Australia. In the meantime it is important the that central government take a more active and aggressive role in reviewing, and if necessary rescinding, local regulations that undermine the national economic interest.

References

- Bisnis Indonesia*. 2002. "Perusahaan Garmen Jabar Mulai Relokasi." 12 April: 9.
- Cameron , M. and B. Tomlin. 2000. *The Making of NAFTA: How the Deal was Done*, (Ithaca: Cornell University Press).
- Central Statistical Agency (*Badan Pusat Statistik* in Bahasa Indonesia) Homepage:
<http://www.bps.go.id>
- Ianchocichina, E., W. Martin and E. Fukase. 2000. *Assessing the Implications of Merchandise Trade Liberalization in China's Accession to WTO*. Washington, D. C.: World Bank, June 23.
- James, W. 2002. *The Competitiveness of Indonesian Non-Oil Products in Major Markets: Market Shares in the United States and Japan*, (Jakarta: Partnership for Economic Growth, Ministry of Industry and Trade).
- James, W. 2000. "The Rise of Anti-Dumping: Does Regionalism Promote Administered Protection?" *Asia-Pacific Economic Literature*, 14(2), November: 14-26.
- James, W. 1998. "A Problem with Indonesia's Export Statistics," *Bulletin of Indonesian Economic Studies*, 34 (3), December: 115-118.
- Magiera, S. 2000. *Indonesia's Trade Performance During the Economic Crisis*, (Jakarta: Partnership for Economic Growth, Ministry of Industry and Trade, May).
- Manning, C. 2002. 'Harmonizing Labor Policies' paper presented at the *Employment Friendly Labor Policies for Economic Recovery* Technical Seminar, PEG- Bappenas, March 2002.
- Ministry of Industry and Trade, Directorate-General for Textiles and Textile Products Industry. 2001. Statistics on Textile Industry in Indonesia, 1995-2000.
- Soesastro, H. Kian Wie, T and Chandra, W. 2001. 'Formulating a Comprehensive Investment Policy for Indonesia in a Competitive Environment.' Paper presented at the PEG-CSIS seminar on *Indonesian Ecoomic Institution Building in a Global Economy: Investment Policy and Institutional Development*. Jakarta August 2001.
- Statistics Canada. 2000. *World Trade Analyzer Data Base, 1980-1997*.

- Takii, S. and E. Ramstetter. 2000. *Foreign Multinationals in Indonesian Manufacturing 1985-1998: Shares, Relative Size and Relative Labor Productivity*, Working Paper Series Vol. 2000-18, (Kitakyushu: International Centre for the Study of East Asian Development, September).
- Takii, S. 2002. *Productivity Differentials between Local and Foreign Plants in Indonesian Manufacturing, 1995*, Working Paper Series Volume 2002-02, (Kitakyushu: International Centre for the Study of East Asian Development, May).
- Timmer, M. 1999. "Indonesia's Ascent on the Technology Ladder: Capital Stock and Total Factor Productivity in Indonesian Manufacturing, 1975-95," *Bulletin of Indonesian Economic Studies*, 35 (1), April: 75-94.
- World Trade Organization Homepage. 2002. [Http://www.wto.org](http://www.wto.org)
- US-China Business Association Homepage. 2002.
[Http://www.uschina.org/public/wto/factsheets/textilesspec.html](http://www.uschina.org/public/wto/factsheets/textilesspec.html).